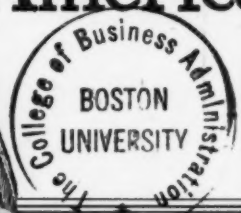


Manufacturers Record

Exponent of America



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December 22, 1927

Christmas: "Hark! The Herald Angels Sing."

Over the plains of Judea 1900 years ago the angelic chorus, heard by the shepherds as they tended their flocks, sang:

"Glory to God in the highest, and on earth
peace to men of good will."

And the Angel of the Lord said:

"Fear not: for, behold, I bring you good tidings of great joy,
which shall be to all people.

"For unto you is born this day, in the city of David,
a Saviour, which is Christ the Lord."

The meaning of this heaven-heralded birth cannot be comprehended by the finite mind, but perhaps we can gain a larger conception of it if we think of the fact that the Creator of all the universe—for John tells us that all things that were created were created by the Christ—entwrapping Himself in mortality, came down to earth as a babe, lived in poverty and died upon the cross for the salvation of mankind.

In order that we may gain some larger view of this incomprehensible act let us remember that astronomers have recently told us that with new telescopic power it is now possible to count 60,000,000 stars that had never before been seen by the human eye, that there is one star now visible the diameter of which is 4,000,000 miles as compared with 8,000 miles, the diameter of our earth, and that it is so distant that light traveling at the rate of over 180,000 miles a second would take a million years to come from that star to this earth. And the whose birth the world is celebrating was the Creator of all these millions and tens of millions of worlds, stretching out into an infinity of space which astronomers dare not even attempt to describe.

In a study of these facts Christmas Day should well bring forth in every human heart a profound sense of reverence, of awe, of thanksgiving, and of consecration of lives to the advancement of mankind, to the happiness of young and old and, by our lives, to help to hasten the day of peace upon earth to men of good will, and the singing with a new joy:

"Hark! the herald angels sing
Glory to the new-born King;
Peace on earth, and mercy mild,
God and sinners reconciled!"



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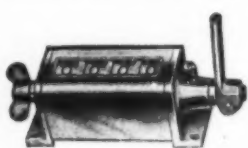
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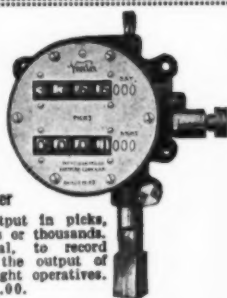
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Manufacturers Record

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Vol. XCII No. 25 }
Weekly. }

BALTIMORE, DECEMBER 22, 1927.

{ Single Copies, 20 Cents.
\$6.50 a Year. }

"See America First."

GUY M. WALKER of New York, the originator of the expression "See America First," in commending the editorial in a recent issue of this paper urging a larger activity on the part of the transportation interests of the country in developing travel through America, writes:

"I was much interested in your cover editorial of last week. What we need is to develop more 'See America First' advertising both by railroads and banks. In this connection it may be of interest to you to know that I was the one who invented the slogan 'See America First.' In 1901 I had written for the New York Central Railroad a pamphlet on China, and when the New York Central began publishing its little Four Track Magazine I wrote a series of travel articles for it, in one of which, published in 1902, I urged the American people to see America first before going to Europe. Some five years later Mr. LeBaron, the editor under old George H. Daniels of the Four Track Magazine, who, remembering my phrase in the article published in the Four Track Magazine, asked me to write a special article bearing that title for the Good Housekeeping Magazine, of which he had then recently become the editor. I wrote the article and it was published in the July, 1907, number of Good Housekeeping. A couple of years later, at the time of the Seattle Exposition on the Pacific Coast, the Great Northern and Northern Pacific Railroads published a reprint of it to the number of over 2,000,000 copies, which were circulated as a folder with the advertising by the railroad companies to boost the Exposition. I afterwards wrote another article called 'The Discovery of America in 1910', published in Good Housekeeping in the summer of 1910.

"But what is needed is a campaign on the part of the railroad companies and bankers to keep our people at home and induce them to spend their money traveling here by showing them that outside of ruins we have far more to show in our own country than they have anywhere in Europe."

If our transportation interests and the bankers connected with the control of railroads and steamship lines were displaying anything like the activity in developing tourist travel in America that foreign steamship lines are doing in developing travel to foreign lands, we would soon see a complete change. The national weekly publications, the leading magazines and daily papers are literally crowded with glowing advertisements urging people to go abroad. International and domestic bankers, as we have recently stated, are cooperating to the fullest extent in this campaign. The

foreign steamship lines are paying commissions to bankers for every passenger they book for foreign travel. With a continuation of this publicity work which these steamship lines are carrying so effectively there is certainly no telling to what extent American people will be tempted to visit Europe, South America, the Orient, and all the Mediterranean regions, without in advance having seen or known anything much about our own country.

There is a romance about going abroad which is developed to the fullest extent in this publicity and it appeals to hundreds of thousands of people, many of whom care comparatively little about seeing "America first."

There is no such advertising by railroads in this country today as that to which Mr. Walker refers as having been done by the New York Central under George H. Daniels. He was a marvel in publicity work. Also, in those days the Pacific railroads were doing better and broader work than they have ever done since, and relatively speaking Southern railroads were doing likewise.

The industrial departments of Southern railroads, in most cases, are so greatly hampered by the niggardly amount of money available that it is a wonder they can accomplish anything.

Stuyvesant Fish, when president of the Illinois Central, was more ready to spend money for publicity in behalf of the South than is any other railroad in the South, so far as we know. One instance alone indicates what he was constantly doing. Learning that the MANUFACTURERS RECORD was about to publish a special edition devoted to the material potentialities of this section he ordered 10,000 copies, nearly all of them to be mailed at the expense of his road to leading citizens throughout Europe in order to show Europeans the financial opportunities in the South. And he urged that all other great corporations identified with Southern development distribute literature about the South in keeping with that order which he gave to this paper.

The MANUFACTURERS RECORD is fully appreciative of all the railroads of the South are doing, but we are compelled to note the difference as compared with former years; this we attribute to the fact that the controlling powers in these railroads, the bankers and the higher officials, do not always recognize the importance of publicity to the extent that men like Flagler, Plant, Fish and other great railroad leaders realized it in their day. The time has come for the banking houses, which so largely dominate the ownership and management of the railroads of the South and Southwest, to insist upon larger expenditures than they have ever made in the past for developing tourist travel and industrial development. Here is a field for broad constructive work when backed by a supply of money equal to this tremendous opportunity.

RATE OF TRAFFIC GROWTH IN THE SOUTH TO CONTINUE INCREASING FOR 300 YEARS.

VIRGIL JORDAN, chief economist of the National Industrial Conference Board, who was invited to discuss the subject, "Are Business Booms Extinct?" before the recent meeting of the Railway Business Association on November 16, said in the course of his remarks that the railway traffic in the Southern district would reach its maximum rate of growth in about 300 years, whereas in the Eastern district 1925 marked the maximum rate of growth, while in the Western district the actual maximum rate of growth appears to have been reached about 1908 or 1909. In other words, the South has its great growth ahead of it for at least three centuries.

Speaking about the "Future of the South" Mr. Jordan said:

"I don't know how thoroughly it is possible at the present to forecast accurately the probable growth of railway traffic on the basis of past experience. The curve of growth of ton-miles, so far as we have statistics, resembles a figure S; it starts off at a rather slow rate of growth, increases very fast and then tapers off in recent years. But there are very great differences in the rate of growth of railway traffic in our various sections. The Eastern district of the United States shows a rate of traffic growth of about 2 per cent a year; the Western district about 2½ per cent and the Southern almost 4 per cent—in comparison for the country as a whole. In the Eastern district 1925 marked the maximum rate of growth of railway traffic, whereas in the Western district the actual maximum rate of growth appears to have been reached about 1908 or 1909.

"In the Southern district the nearest approximation we have to the date at which the rate of growth of railway traffic will reach its maximum is about A. D. 2221. That is to say, there is no indication whatever as yet of a decreasing rate of growth in railway traffic for the Southern district. Roughly, about 300 years is as far ahead as we can see when railway traffic for the Southern district will reach its maximum rate of growth.

"On the basis of such analysis as has been made of these rates of growth, a number of rough forecasts have been made of future railway traffic. One made about three years ago estimated that in 1933—about five years from now—the total ton-miles in the Eastern district would reach about 256 billion ton-miles, in the Western district about 155 billions, in the Southern district about 189 billions, or a total of about 600 billion ton-miles. That estimate is about 40 billions more than the United States Chamber of Commerce made some years ago in trying to forecast future railway requirements."

Apropos of these estimates it is especially interesting to recall predictions made twenty years ago by the MANUFACTURERS RECORD, which, considering the probable growth of freight traffic, said that the 173 billion ton-miles of 1904 would by 1916 probably have grown to between 300 billion and 350 billion ton-miles. The conservatism of this prophecy was revealed by the facts, for in 1916 traffic reached a total of more than 366 billion ton-miles. Again, in 1908, it was over 408 billion, in 1920 over 413 billion, in 1923 over 416 billion, in 1925 over 417 billion and in 1926 over 450 billion ton-miles. These latter figures are for revenue freight, but all kinds of freight for 1926 totaled more than 488 billion ton-miles, that being the biggest railroad year of all.

Although the traffic statistics for 1927 when they are finally compiled will possibly show a somewhat smaller total of ton-miles than 1926, it will doubtless be very much greater than 1925, as it has only been in recent weeks that freight loadings have displayed decreases as compared with last year, and the present indications are that loadings for the entire year will average more than 1,000,000 cars a week, whereas last year that average was considerably greater according to the data of the American Railway Association.

But the outstanding matter of interest in the data relating

to traffic growth is that relating to the South as pointed out by Mr. Jordan. As he has indicated by telling the results of study of traffic growth in the Southern district, the South has its greatest days ahead of it; its greatest years; its greatest decades. The magnitude of its resources is so vast that it cannot be approximated. Nature's riches have been distributed with lavish hand all the way from the Potomac to the Rio Grande and, although now and then it seems as if the rewards of discovery and research could go no further, almost immediately some new find is made to astonish the world and stagger imagination. The native wealth which lies in the mountains, valleys and rivers of the abundant South has really been but slightly found. Generations hence its people will be astounded time and again by the tremendous natural resources that have been scattered generously around them by the divine hand of Providence.

NOT A "VETERAN."

J. J. WILSON of the Stiles Lumber Company of Abingdon, J. Va., in commending the work of the MANUFACTURERS RECORD, says:

"Its editorials have always reflected study and painstaking effort and, while not always agreeing with some of the policies advocated, one cannot but respect the veteran editor, who always has the courage of his convictions, and never fights behind a haystack."

Mr. Wilson's commendation is appreciated, but it is marred by referring to the editor of this paper as "veteran." He protests. It will be many years before he is entitled, or at least before he is willing, to accept such a designation. He is younger today in ability to work than he was 30 or 40 years ago, and the mere fact that he has been on the newspaper job for more than 50 years cannot be charged against him in such a way as to have him designated as "veteran." He is young and hopes to get younger for many years to come, for he looks on life with joy, and daily gives thanks for the strength to work and the work to do.

INDUSTRIAL CONFERENCE OF AMERICAN MINING CONGRESS.

DR. HENRY M. PAYNE, consulting engineer of the American Mining Congress, in a letter to the MANUFACTURERS RECORD announces that the annual Industrial Development Conference, held under the auspices of the Mining Congress, will take place next year on March 15 to 17. The location of the proposed conference will be announced about January 1.

In the course of his letter Dr. Payne says:

"The following resolution was introduced into the national convention by the Southern Division and unanimously adopted:

"Whereas, it is the steadfast purpose of the American Mining Congress to stimulate development of mineral resources and to promote the welfare of the mining industry of the United States, and

"Whereas, this organization has during recent years made investigations of Southern mineral resources and has found that in States in the South there are valuable deposits of zinc, lead, manganese, bauxite, kaolin, marble, clays and other useful minerals in commercial quantities that are susceptible of economic mining; therefore, be it

"Resolved, That this body earnestly commends the undeveloped fields in the South to the favorable consideration of the mining industry of the nation to the end that home industries may be fostered and have precedence over foreign fields in supplying minerals for American needs in commerce and industry.

"Recommended for adoption by the Resolutions Committee December 3, 1927.

"(Signed) A. G. MACKENZIE, Chairman.

"(Signed) E. H. WELLS, Secretary."

The Supreme Need of America: A Christmas Sermon.

THE supreme need of this country is a nation-wide revival of the old-time, genuine prayer-meeting religion.

A religion that makes men realize that the same Divine authority that tells us that there is a Heaven also tells us there is a Hell. If we accept the belief in a Heaven, we must accept from the same authority the belief in a Hell—

A religion that makes men realize that every act of evil is recorded on their conscience and that, though it may sleep for a while, it can never die—

A religion that makes an employer understand that if he is unfair to his employees and pays them less than fair wages measured by his ability and their efficiency and zeal, he is a robber—a robber of his employees and a robber of himself of honor—

A religion that makes an employee know that if he does not give full and efficient service to the extent of his ability he, too, is a robber—a robber of his employer's time and a robber of his own character—

A religion that makes a farmer who packs bad fruit at the bottom, to deceive the buyer by the good fruit on the top, realize that he is a thief just as much as the one who robs a hen roost at night, and is thereby destroying his own character—

A religion that makes a man who robs a railroad of its fare or freight bill know that he not only robs the road, but that he also robs himself of all right to feel that he is an honest man—

A religion that makes a man realize that by driving too hard a bargain with his servant, his employee or his merchant, he can be just as much a robber as the seller or purchaser who swindles by false weight, false packing or false claims—

A religion that will teach church members who fail to contribute to the extent of their ability to the support of religion that they are robbing God and man alike, and compels them to recognize that if they are paying their pastor less than a living salary they also are robbing God and man alike—

A religion that makes the minister of the Gospel realize that he has not been called by Heaven to preach on economic questions about which he knows very little, but to preach in all its fullness "Christ and Him Crucified," or else the blood of the lost will be upon him—

A religion that will make labor men who by threats

or by actual violence endanger the lives of other laboring men or the property of others realize that at heart they are murderers, for they are seeking to murder the liberty of their fellow-men, and are murdering their own best individuality and character—

A religion that will make the politician who yields principle to his party politics, who worships at the feet of any class to secure votes and sells his soul for preferment, not only know that he is a coward and a poltroon and unworthy of the respect of any decent man, but also will make him see that he is helping to murder human liberty—

A religion that makes every newspaper worker feel the tremendous responsibility of the press to help mold and shape for good the people of this land in this day of wild turmoil in thinking and acting that he may appreciate his high calling, or prove recreant to God and humanity—

A religion that will make every man who professes to be a Christian realize that if he violates the laws of the land, whether it be the Prohibition laws or others, merely to gratify his own views or desires, he is to the extent of his influence breaking down all law, and has no right to expect that his family and his friends will not violate any law, moral or statute, which does not suit their convenience—

A religion that is active, not passive—

A religion that gives a man backbone to stand for the truth, however great may be the dangers that he may have to face in upholding the right as God gives him the power to see the right—

A religion that will make men realize that the most stupendous event beyond all human comprehension is that the Creator of the vast universe, the study of which staggers the human mind, so loved mankind in all its waywardness that He "gave His only Begotten Son that whosoever believeth in Him should not perish, but have everlasting life." No finite mind can possibly grasp the full meaning of this love, nor of the death upon the Cross which followed for the salvation of the world—

A religion that literally burns itself into the brain and the heart and the soul of every man who professes to be a Christian, and makes him realize that the one supreme thing in his life and in the life of those with whom he comes in contact is by his life to uplift the Cross, that men may be drawn unto Him who, upon

that Cross, gave his life for sinners of the world.

In short, we need a revival of that soul-searching religion which will make men and women strive in every act of life to do that which on the great Judgment Day they will wish they had done, as with soul uncovered they stand before the Judgment Seat of the Eternal.

Until the people of this nation accept and live this religion, there will be strife where there should be harmony; there will be strikes and lockouts and murder where there should be co-operation and peace; there will be law violation where there should be law obedience; there will be hatred where there should be friendship and love.

With the Golden Rule followed in the fullness of the spirit of this kind of religion, there would be found a solution for every business trouble. There would be created friendship between employer and employe. Capital and labor would work in harmony and with efficiency—efficiency of the capital and efficiency of the labor, with profit to both.

Religion of this kind is not measured by the hope of Heaven hereafter nor the fear of Hell, but by the full fruition now of "peace on earth to men of good will." It is not merely the chanting of hymns or the offering of Pharisaical prayers, but it is in the recognition and full application by rich and poor, by learned and unlearned, that each one is indeed his "Brother's Keeper," that we can bring this country and the world back to safety. A nation-wide acceptance of this, in heart and in life, would bring peace, and world peace, where there is now turmoil, and men would then cease to seek to gain their ends by lawless acts of immorality, but would, in spirit and in deed, follow the Divine command:

"All things whatsoever ye would that men should do to you, do ye even so to them."

This is a revised reprint of an editorial in the MANUFACTURERS RECORD of August 28, 1919. That editorial, reprinted in leaflet form, was in demand from all parts of the United States to the extent of many thousands of copies. With a slight revision it is repeated here, as the leaflet has long since been out of print and there are still calls for it. Copies of the leaflet in numbers up to ten may be had at two cents a copy, for any larger number one cent a copy. These prices include postage.

INCREASING ENTHUSIASM.

ERWIN A. HOLT of Lawrence S. Holt & Sons, cotton manufacturers of North Carolina, writing to this paper said:

"I read the MANUFACTURERS RECORD with more enthusiasm than ever and am indeed most thankful there is just such a publication."

REDUCE THE COTTON ACREAGE OR SUFFER.

REPORTS from fertilizer manufacturers indicate they are looking forward to a larger increase in the cotton acreage in the South for the coming crop season. If this should prove to be true, it would be one more disaster added to the cotton-growing interests of the South.

Reduced acreage, but intensive cultivation of that acreage in order to lessen the cost of production, is of supreme importance to the cotton growers. If the acreage should be increased, even if the yield should again be as small as it is this year, the very fact of that increased acreage would be used by the cotton "bears" of the world to break down the price of the balance of this year's crop and of the crop which may be raised another year.

Acreage is the club with which the cotton gamblers, working on the "bear" side as they usually do, beat down the price of cotton, and thus beat down any possible prosperity for cotton growers.

Large landowners often encourage their tenant farmers to raise cotton, hoping thereby to get some income from their land regardless of whether the cotton grower actually makes any profit or not. It would be far better if these landowners would as far as possible compel a reduction in acreage instead of an increase, because with a reduced acreage the price they would get for the cotton would be worth more to them than the larger yield at a lower price which might come through increased acreage. The land not put to cotton could be put into other crops, or else allowed to lie fallow for a year; and land is often greatly benefited in this way.

Country bankers, merchants, landowners and all others who have at heart the real prosperity of the South, ought to do all in their power to bring about a reduced acreage of cotton for the coming crop, and at the same time urge as large a diversification of crops as possible and the raising at home of all food and feed supplies.

The South is draining itself by sending hundreds of millions of dollars to other sections annually for food and feed, when every dollar of such stuff that is needed could be raised to better advantage in the South and the money kept at home to the increased prosperity of the farmer and of the people at large.

For a landowner to permit his tenants to grow cotton only and not to raise their own foodstuffs is a reflection upon his intelligence and that of his tenants alike. The banker who lends money either direct to the tenant or the landowner without insisting upon the raising of food supplies at home, is encouraging a shiftless, thriftless farming system which constantly impoverishes the grower.

Fortunately, many banks in the South appreciate this situation and are doing all in their power to encourage the raising of all necessary food supplies at home. Any bank in the South not engaged in this campaign ought to enlist upon it at once and push it as vigorously as possible, for without prosperity for the cotton growers there can be no full well rounded prosperity for the South at large; or, at least, its prosperity will be greatly minimized.

Control of the cotton surplus by growers and regulation of acreage planted to prevent abnormally large yields are two subjects for discussion and definite action by the Southern Cotton Conference called by the American Cotton Association. This conference is to be held at New Orleans January 11 and 12, and is to be largely attended by growers, bankers, warehousemen and others interested in the cotton industry. At this meeting action will also be taken on pending measures for Federal Farm Relief by Congress in connection with surplus cotton control for the future.

HOW TWO OF AMERICA'S GREATEST BUSINESS HOUSES REGARD SABBATH DAY OBSERVANCE.

JOHAN MORRELL & CO., packers, a century old firm of Ottumwa, Iowa, which last year did a business of \$75,000,000, observe the Sabbath Day so strictly that they do not permit anyone in their employ to work for them on that day. This is brought out very strongly in a letter from T. Henry Foster, the president of the company, to Edward T. Fenwick, a Washington attorney, who had written that he preferred not to travel on Sunday in order to attend some of the meetings of the company. In the course of this letter Mr. Foster said:

"I note your letter of the 21st which I am passing on to Mr. McElroy for attention.

"There is one thing, however, I want to comment on and that is the fact that you do not like to travel on Sunday in order to appear at meetings in our behalf.

"I am glad to know this and I want you to feel that you need never travel on Sunday in connection with any of John Morrell & Co.'s business. If, in order to reach a destination, it is necessary to travel on Sunday, it can be understood between us that the work is to go over until the next day, and in this connection you will find us always ready to co-operate with you.

"In our own business we observe the Sabbath Day everywhere and have done so as long as the business has been in existence. We not only do not work ourselves but we do not want or permit anyone to work for us and, as long as the present management is in charge of this business, we expect to maintain this rule.

"We are really glad once in a while to come across people who have the same respect for the Sabbath Day we have."

To those who still believe in the observance of the Sabbath Day it is interesting to note that this great firm gives such strict observance to the Sabbath and that Mr. Fenwick, a Washington lawyer, prefers not to travel on the Sabbath Day even to attend meetings in connection with the operations of the business.

In a letter to the MANUFACTURERS RECORD, President Foster, writing on this subject, says:

"A great deal of our success I attribute to the high standard of living maintained by the founders of our business and the importance they attached to spiritual values and made use of in their relations with their employes, their competitors and the public. This has had its influence on the business down through the years and long after all of them have passed away.

"You will realize that we operate a highly perishable business, dealing as we do in livestock and fresh meats. Nevertheless, we have found it not only possible, but also entirely practical, to fully observe the Sabbath as a day of rest."

Another great Western firm, that of Marshall Field & Co. of Chicago, for many years regarded as one of the greatest business organizations in America, with ramifications world-wide in extent, follows the same rule as that of Morrell. Seventy-five years ago Marshall Field & Co. inaugurated a practice of pulling down their store window curtains on Saturday night until Monday morning, and this practice has continued up to the present time.

In a full page advertisement in the Chicago Tribune some weeks ago that house carried the following interesting statement as an advertisement:

THE THINGS UNSEEN.

"At the end of their first week in business the owners of a little shop lowered the curtains of their windows and went home.

"On each succeeding Saturday night the curtains were pulled down and kept down until Monday morning.

"As the little shop grew the suggestion came from many

sources that the curtains should stay up. 'The windows are beautiful,' people said; 'let us walk by and look.'

"The owners had an old-fashioned background. They had been taught in childhood that six days are enough for the things that are seen. The first day of the week, they said, is for the things unseen—rest and worship, and family life, and freedom from thoughts of business.

"Seventy-five years have passed. The store has grown until its windows are said to be more valuable than any windows in the world. But the example of the founders remains, and all day Sunday the shades are down.

"Is this old-fashioned custom good, in days when so many old-fashioned customs are being crowded out? We like to think so. We like the idea that on the first day of the week the church and the home should come first.

"Strong churches and strong homes build strong cities. All the great words of business—service and courtesy and kindness and truth—have their inspiration in religion. And prosperity is only permanent where there is reverence, and mutual trust, and faith."

Here is a lesson for all America to study. May it be heeded ere it is too late.

THE POSSIBILITIES OF OLIVE RAISING IN THE SOUTH.

THE article by Courtenay De Kalb recently published in the MANUFACTURERS RECORD in regard to the possibility of raising olives in the South has attracted much attention and brought forth a number of inquiries. In reply to a letter from Dr. C. L. Isbell, acting head of the horticultural department of the Alabama Polytechnic Institute, Auburn, Ala., asking for further information on the subject, Mr. De Kalb wrote to Dr. Isbell as follows:

"Referring to your letter forwarded from the office of the MANUFACTURERS RECORD, I beg to say that when I lived in Alabama, where I was the head of the department of mining engineering of the University of Alabama, I was informed that a number of olive trees planted by early colonists at St. Stephens were still in existence, and were looked upon as mere curiosities. Considering that olive trees were planted quite commonly in New Orleans and at many Louisiana plantations in the French days, and considering that such olives necessarily must have been brought from France, where relatively hardy varieties are cultivated, it did not seem at all strange that these trees should exist at St. Stephens.

"The entire Piedmont area of the South enjoys a winter climate similar to the olive districts of France and northern Spain. Some very hardy varieties of olives exist, which will withstand even the rigors of the climate of Burgos. The olive thrives best on lands that, in the South, would be of small value for anything else. They only need the sort of culture that is required for apples, i. e., the ground must be plowed and kept free from weeds in that manner, once a year, with the addition of a small amount of fertilizer. Of course, I am aware that very few farmers, South or North, know how to cultivate apples, and that they neglect nearly every vital principle for their favorable fruiting, so there is no doubt that a great deal of education and good example would be essential to instill the correct idea of olive production into our people. If it were done, the Southern agriculturist would be able to add enormously to his resources from valuable crops that are capable of being produced on lands that otherwise yield mostly unprofitable crops.

"I was very deeply in earnest when I wrote that article, hoping to be able to benefit the South by adding a new and great source of revenue. Allow me to suggest further that

a study of Californian olive culture would be of little value with reference to the conditions in the South. In California, olives are grown mostly by irrigation, which produces better fruit for eating, but not so valuable for oil. They all are tender varieties, and unsuitable for the Appalachian and Piedmont conditions. It would be essential to study the culture on the spot in Spain. In France there is usually too much rain to produce as highly flavored a fruit as is raised in Spain. Of course, there is a good deal of rain in the South, so that the French conditions also merit study.

"I am convinced that sincere investigation of the possibilities of olive culture in the South, undertaken by a study of the Spanish varieties and methods, would lead to the addition of a new crop, bringing the less valuable lands into use in the South, increasing the revenue of the Southern farmer by hundreds of millions of dollars, ultimately, when the industry had become established. Allow me also to point out that the demand for soap alone would serve as the basis for a great enterprise."

In further discussion of the points raised in his letter to Mr. Isbell, Mr. De Kalb writes the MANUFACTURERS RECORD: "There is no reason on earth why the Eastern farmer should not utilize the advanced methods of Oregon and Washington, where the orchards are kept in a high state of cultivation, free from weeds, free from grass, well stirred every year, fertilized and sprayed at intervals during the summer, to insure fruit free from worms and blemishes."

BANKERS, FOR THE COMMISSION PAID BY STEAMSHIP COMPANIES, URGING AMERICANS TO GO ABROAD.

A FLORIDA bank recently in the Times Union carried an advertisement about equal in size to a page of the MANUFACTURERS RECORD in behalf of the advantages of Buenos Aires, Rio de Janeiro and other South American ports, for travel from Florida. It seems to us this is a travesty on the situation. Why any Florida bank should seek to induce its depositors, stockholders, or others, to leave Florida for tourist trips to South America passes our understanding. Of course, this bank—as are the other banks throughout the United States which are aggressively urging tourist travel to Europe, the Orient, to Palestine, and South America—is doing this by reason of the commission the steamship lines pay for the work. But are not these bankers, for the profit they are making out of this business, facing a growth of this tourist travel that will drain tremendously from the finances of America? We are already sending abroad for tourist expense certainly not less than \$700,000,000 or \$800,000,000 a year and this is annually increasing at a rapid rate.

The danger of this situation has repeatedly been emphasized by this paper. It is a serious question in our minds whether the international bankers who are trying to break down our tariff system in order to make somewhat safer the investment of their clients in foreign loans and the commercial banks which are accepting rather heavy commissions from steamship lines to assist in developing tourist business are not playing a losing game and working to the disadvantage of this country. As we recently stated, the great banking interests, international and domestic, are thus practically united in a campaign to induce American people to go abroad and spend there the money they might more wisely spend in this country. Thousands of Americans who know little about our own country and who have never traveled throughout its length or breadth are thus being persuaded to go abroad and spend their money.

Are the bankers engaged in this money making scheme quite fair to our own country?

A FALSE ECONOMY THAT LEADS TO RUIN.

[In view of the facts which have been recently brought to public attention in regard to the wretched condition of the Army camps of the country, we republish the following which appeared as an editorial in the MANUFACTURERS RECORD of June 11, 1925. Every statement made then is emphasized by the conditions which prevail at present.]

A STRIKING illustration of unwise supposed economy "which tendeth to poverty" by the National Government is illustrated in a letter received in regard to some investigations which were made at Camp Eustis in Virginia.

The writer of the letter went to Camp Eustis to make a study of it with a view to placing his son there, but after a careful investigation decided that it would be a most undesirable place in which to build up the right kind of character on the part of a young boy fitting himself for college. He writes:

"I spent a couple of hours last Saturday at Camp Eustis. The entire group of buildings is sadly in need of some good paint, not only for the preservation of the wood but to improve the morale and efficiency of the soldiers. I imagine there is a certain psychological influence about it. I think it is regarded in manufacturing and industrial circles that shipshape, well-ordered, well-conducted plants add to the efficiency of the workers and increase their good feeling and loyalty to the company. I imagine the soldier receives some mental impression from the ill repair or good repair of his surroundings and implements.

"My own impression in going over the grounds of Camp Eustis was distinctly unfavorable. While I had practically decided not to send my son to the Military Training Camp in July at Camp Eustis, on account of his personal opposition, after seeing the camp, I am fully decided that it is not the place for him, and I thoroughly approve of his wishes in the matter.

"It is hard to imagine how the morale of impressionable young men can be helped by the unfavorable conditions of the buildings. With thousands of soldiers at the fort with probably a lot of spare time, it seems incomprehensible that the Government will not buy enough paint, which the soldiers probably could put on the buildings, as a matter of economy. The destruction which is taking place in these buildings at present is downright extravagance and a waste of the people's money. I suppose these buildings were constructed with labor at about \$12 a day for the working man during the war. I am told the conditions at Camp Meade, Maryland, are worse even than at Camp Eustis."

Is it a matter of false economy by which the Government does not spend the money necessary to keep these frame buildings painted and in order, or is it because the Government is so completely dominated by labor unions that it would not dare permit its soldiers to paint the buildings and thus get practical experience in this kind of work and tidy up the place in which they are spending a part of their lives?

This is only one illustration of many in which a false sense of economy, through lack of judgment, is endangering the country. Economy is a wise thing when wisely used, but there is a false economy—and to a considerable extent it is being practiced today from Washington—"that tends to poverty." There is too much oversteering of this idea of enforced economy. Far better would it be for the good of the individual and the good of the country for the Administration to encourage large expenditures which are needed by individuals, by communities and by the Federal Government, and for which the money may be available. It is false economy that permits the individual home-owner or the Government owner of army camps to allow frame structures to rot away for lack of paint. This is waste to the extreme.

If all the statements made about the destruction of our timber supply steadily decreasing were true—and some of them are exaggerated—the actual danger to the country in shortage of lumber for the future on this account would scarcely be greater than the loss through the rotting of wood which goes on all over the land by reason of unpainted buildings.

One cannot travel North or South without being amazed at the rapidity with which hundreds of thousands of dwelling houses in towns and cities and in the country are going to pieces for lack of paint. Recent trips on the two leading railroads between Baltimore and New York showed the writer a degree of slovenliness in thousands of tenement houses, without paint and with fences rotting away, almost beyond comprehension. The South has been charged with not doing enough painting, and the charge is justified. There are thousands of dwellings and barns and other outbuildings in the South the lives of which could be lengthened for many years by proper painting. But the same conditions prevail to an alarming extent in the towns and in the larger cities of the East.

The Government is setting a bad example in permitting its frame buildings in its training camps to go to pieces for lack of paint. But paint is only one way in which a wise expenditure means permanent economy. The economy carried to the extent which it is now being preached never produces prosperity. It discourages investments. It discourages the purchase of needed supplies, accepting the idea that economy is a virtue in itself, whereas economy can become, and often is, a vice, destructive of character and of business alike.

We suggest that the Government set the example by cleaning up, and painting up, and putting in decent shape every training camp in the country, and thus stimulate owners of dwellings, whether occupied by themselves or rented, to paint up and clean up and put in shape every house which is now falling to pieces for the need of a few nails and with its woodwork rotting away for lack of paint.

HATS OFF TO HENRY FORD AS A PUBLICITY GETTER.

FOR years it was thought that Andrew Carnegie was the most successful man this country had ever produced in getting publicity, for most of which he never paid or was called upon to pay. But Andrew Carnegie was a piker as compared with Henry Ford in publicity getting. Whatever one may think of some of the activities of the Ford Company and the treatment accorded to its representatives, whatever one may think of the long shutdown of its plant and the tremendous losses its agents had to incur, he can but take off his hat in admiration of the secrecy maintained as to the new car, and to that burst of publicity throughout the world which heralded the car's coming.

Ford may perhaps have brought about a wonderful revolution in the new car he has produced. Certainly he has caused a revolution in public sentiment in favor of his marvelous ability in publicity work and in the world-wide influence this will have upon his own motor-making interests. But the car he has made and the price at which he is selling it will mean a competition of tremendous importance with the makers of other moderate priced cars. These other makers must not only improve their cars to a still greater extent than they have done, but they must cut the cost of production and of marketing to meet Ford's competitive prices. This should not be a scramble of one against the other to the disadvantage of all, but a legitimate, honest competition to produce the best possible results on the friendliest possible basis of the Golden Rule.

THE SOUTH THE COMING AERONAUTICS CENTER.

BEYOND its possibilities for the promotion of international friendship, the recent airplane flight of Col. Charles A. Lindbergh in the "Spirit of St. Louis" to Mexico is actually a concrete inspiration to the South as the potential center for commercial and recreational aviation. As shown in an article in this issue, "What Aeronautics Means to the South and the South to Aeronautics," the great Atlantic-Pacific routes are to be laid over southern courses, and the flight of Colonel Lindbergh emphasizes the prospect that air communication with Mexico and Central and South America will attain substantial proportions.

Thus the transcontinental aviation routes over the South will run north-and-south, as well as east-and-west, and it may be said without exaggeration that every city and village in the South will be affected by this most modern method of transportation. Terminals and express-stops will be established in the large cities, and way stations and branch connection stations will place the smaller communities on the aeronautics map. It is hastening the day when week-end trips will be a common thing for the Northern man to make to Florida and the South's sunshine in midwinter.

The day of commercial and recreational aviation is at hand, as has been demonstrated by Colonel Lindbergh, its great exponent from the North, and Commander Richard Evelyn Byrd of Virginia, its exponent from the South. The Nation is indebted to both these great flyers, and the South in particular, as having been proved to be the logical section for development of the new transportation, with all its advantages and benefits.

There are phases of this new industry which make the South the favorite route for airplane travel between the East and the West. Here is a field for investigation on the part of every Southern business man. Here is a field for limitless progress in the South and, in view of the certainty that the building of airplanes is to become one of the great industries of the country, the South should do all in its power to bring into this section the men and the money interested in the building of airplanes and the establishment of flying routes for mail and passengers and for fast freights; for, it is certain that the airplane is to be a heavy carrier of high-class freight needing rapid transportation.

We urge every reader of this paper to study carefully the special article on the subject of aviation and the development of airports throughout the South.

OPPORTUNITY TO AID A GOOD CAUSE.

IN order properly to continue the work in which it is engaged, the American Association Favoring Reconsideration of the War Debts, Inc., has addressed an open letter to sympathizers asking contributions for the movement. As Frederick W. Peabody, managing director of the association, says, "to reach the people with the facts is an enormous and costly undertaking," and he adds that "every dollar so far received has been most economically expended in the distribution of literature setting forth the facts," and "nothing has been paid to any executive."

Among those enrolled in the association are former Attorney General George W. Wickersham and former Secretary of War Newton D. Baker and almost a score of prominent residents of various Southern States.

Cancellation of the so-called war debts of the Allies to the United States has long been urged by the MANUFACTURERS RECORD for the good of this country without regard to the debtor countries.

Our Merchant Marine Policy As Viewed by the Vice-Chairman of the Shipping Board.

United States Shipping Board.

Washington, December 6.

Editor Manufacturers Record:

Your conclusions as to the relative merits of the two articles, one by Lloyd W. Maxwell and the other by Wilbur F. Wakeman, appearing in your issue of November 24, are certainly justified by history.

Most of the claims made by Mr. Maxwell against the policy of discriminating duties have been repeatedly exploded before Congressional committees and elsewhere during the past 60 years. The only new observation I note is the astonishing intimation that the United States really had a good merchant marine at the time this country enacted its first discriminating duty legislation.

John Randolph and John Adams, both of whom were on the ground, were very emphatic in expressing the contrary view. Perhaps, if John Randolph had been looking through imported glasses, he might not have said the following:

"Cast your eyes on your seaports; see how commerce languishes. This country, with every advantage that can render commerce profitable, through defective legislation is deprived of all these benefits."

And possibly John Adams was talking in his sleep, when he said:

"You may depend upon it, the commerce of America will have no relief until the United States shall have generally passed navigation acts; and, if this measure is not adopted, we shall be derided, and the more we suffer, the more will our calamities be laughed at."

The astute statement that American shipping under discriminating duty laws developed and had "almost tripled by 1810" and from that date to 1818 declined, leaves the reader to forget that during the period referred to we had the great embargo, which caused "ships to rot at their docks and grass to grow in the streets of our seaports," the Non-Intercourse Act, which was almost equally destructive, and a three-year war with England that continued commercially until, as he admits, Congress took drastic action in 1818; but it is amusing in these days to see any man waste good printing paper by attempting to demonstrate whether discriminating duties should be considered as an aggressive or retaliatory measure.

The origin and purpose of this legislation is perfectly plain and was clearly stated by Madison in 1796. There is no excuse for any pretended doubt as to the facts. For the first 60 years of this country's existence, we were able to produce ships that cost from 30 to 50 per cent less than the ships of our competitors. This advantage of low cost of construction gave us a maritime advantage that was promptly offset by our competitors through discriminating duties, preferential tonnage taxes, etc., which we were unable to counteract while we were 13 separate States. The result was what John Randolph stated—most ruinous to our shipping. Therefore, to restore the advantage of cheaper ship construction in this country, Congress passed the discriminating duties and discriminating tonnage tax legislation. This legislation enabled American ships to regain their natural advantages and they became successful on the sea.

It was to give this advantage of cheaper ship construction

its full effect that the general abolition of discriminating duties was advocated during the earlier half of the Nineteenth Century. It was not because our discriminating duties were ineffective—it was because they were effective; and we knew that the abolition of discriminating duties by all concerned, ourselves and our competitors, would leave our natural advantage of cheaper ships in unrestricted force, thus giving us a controlling advantage. It was because our competitors knew this that they refused to give us the protection of their discriminating duties. As soon as steamships came into the picture, and it was seen that the cheaper cost of ship construction was swinging from us to our competitors, naturally our competitors began to advocate the abolition of all discriminatory legislation—and we let them have their way.

The files of our research department contain reports showing that at the time they were made 65 per cent of the freight going out from Vancouver was of American origin; and that the reason for this was the fact that the tariff charges assessed by Australia were lower on goods that had had the benefit of Canadian or British transportation. Also, that more recently the tariff differentials granted on the greater part of goods going into Canada, have diverted and are diverting a large amount of traffic from United States ports to Canadian ports, with a marked advantage to those ports. A September finding of the Canadian Railway Commission authorizes the hauling of grain from Buffalo way up around the snow and ice north of Maine over to St. John and Halifax, a distance of 1183 miles for the same price that grain is hauled that 397 miles of downgrade to New York city.

Now, I am not wedded to discriminating duties or to any other particular method of restoring the American merchant marine. Having been a student of this question at home and abroad for more than forty years, I know that discriminating duties would restore our merchant marine; that all this talk of retaliation would amount to nothing, just as the talk of retaliation, every time we pass a protective tariff Act, evaporates into air that is not even hot. There is exactly the same justification for assessing a tariff charge on goods delivered by a foreign vessel as there is for assessing a tariff charge upon goods delivered from a foreign mill.

Direct government aids also would give us a merchant marine. Japan demonstrated that nearly forty years ago.

I know that only government aid of some kind can overcome the financial handicaps which the higher standards of living in this country place upon our vessels; but, unlike this gentleman, I have frequently presented methods by which this aid can be given. Until people are able to come forward with a definite and practicable plan that has had its usefulness as an aid to shipping demonstrated, it would seem as if ordinary judgment would suggest that they let this very important subject alone.

EDWARD C. PLUMMER, Vice-Chairman.

Better Homes and Building Exhibition.

The Real Estate Board of Baltimore announces that the Seventh Annual Better Homes and Building Exposition will be held at the Fifth Regiment Armory, Baltimore, from April 14 to April 21, 1928, inclusive. It is hoped to make this exposition excel all others which have been held in Baltimore.

What Aeronautics Means to the South and the South to Aeronautics.

By GEORGE GARNER.

Almost lost to sight and merely dots on the map in various States in every section are many towns which can debit their obscurity to their refusal to permit railroads to enter their precincts or areas when opportunity offered. Unable to foresee the almost unlimited possibilities and advantages of the new-fangled contrivance called a locomotive, they shooed the rail lines away and now are stranded high and dry while the stream of traffic and transportation and prosperity swells in increasing flood miles from their secluded sites.

And such will be the fate of many cities and towns in the South, if they fail to get onto or into connection with the main lines of aviation routes now in operation, or planned for that section—so say to me members of the National Advisory Committee for Aeronautics.

Only 100 years ago, the first railroad in the United States was started; yet, now, over 250,000 miles of track crisscross and grid the land. Only 24 years ago, in 1903, Wilbur and Orville Wright virtually started the airplane on the wing; yet, today, thousands of tons of mail and freight are carried thousands of miles daily in airplanes, passengers are transported over great distances and, actually, in some sections persons use the airplane to go daily to business, in place of the automobile. And all this without emphasis on varied other important uses to which the airplane is put in these days, especially in the South.

And just as the South was the mother of American railroads 100 years ago, so in its arms, at Kitty Hawk, N. C., was cradled the infant airplane which, multiplied by, literally, thousands, has become a recognized, important factor in the economic life of the greatest business nation in all the world. The railroad and the airplane—two members, with the automobile, of the great trinity of transportation and prosperity—actually were born in the South. And to the South both are devoting their attention in constructive development.

"In 15 or 20 years, airplane traffic and travel will be generally regarded as on the same plane with railroad and automobile service," say members of the Committee for Aeronautics.

"There are of record some 4000 fields in the United States on which landings may be made—owned by States, municipalities, corporations, clubs, commissions and individuals," says the aeronautics branch of the Department of Commerce. In a list of about 850 for all the States are shown 295 fields in the South, though some of these still are in the "proposed" class.

In this disclosure, there is no discouragement for the South, but rather stimulation to immediate activity in the establishment of airports in every town and city, even though no airline for its particular area be contemplated in the immediate present. For:

In their continuous study of possible airways, like engineers prospecting for railroad lines, the Committee for Aeronautics and the Department of Commerce already have obtained sufficient information and data to convince them that over the South will lie the best routes for travel to the West, while for the South itself these authorities consider air service to be of infinite value, locally and as a whole.

"Of the various factors to be considered in laying an air line, probably none is more important than atmospheric con-

ditions," said George W. Lewis, director of aeronautical research in the Committee for Aeronautics, in discussing the intimate, reciprocal advantages for the South and the airplane service. "So, we find that the best routes lie over the South for traffic through to the West. In summer, of course, conditions are good, and in winter the Southern route assures escape from snow and cold, while also the mountains are far more easy to negotiate than the great mountain ranges of the West."

In short, the transcontinental trunk lines will cover the South, which means, as in the case of railroads, not only station stops at great cities, but also local service for small cities and towns along the routes. So, "any town or city is foolish which does not provide a field, whether it be on a main airline or not," says Dr. Lewis. For communities on the main lines, the advantages are obvious and need not be recited; for other towns, there should be connection for mail and express and passenger service, to reap advantage proportionate to their geographical location. As a matter of fact, as the air service develops, every city and town in the South will be potentially a part of the great system, whether on a main line or through connection. For, while railroad connections involve obtaining right of way, grading of the course, the building of bridges, the laying of roadbed and provision of rails and ties and switches and other tremendously costly features, connection by air line requires no such outlay, but can be provided at negligible cost—a cost which will prove a real investment, rather than an unremunerative expense.

Evidence of the general use of the airplane is seen in advertisements by the Ford Company, for instance, that airplane service will be provided in the same manner as auto service long has been offered, and this plan, it is understood, is to be followed by other concerns manufacturing airplanes.

Finally, every Southern city and every town and village needs airports for intercommunication; for, the day is at hand—in some sections, is really here—when persons living within 100 miles of any city will jump into their airplanes "to get to town," and airplane commuting will become customary.

"In the development of cities in early days," Dr. Lewis told me, "the average area of a city was four miles, an hour's walk for the average man. The houses were huddled within that area, to be in easy touch with the business district, and the cities of olden days were compact. Then, came the horse car and the stage, and the city area expanded to eight miles, a reasonable trip in one hour by those conveyances. Next, came the trolley and the area expanded a little farther, and finally the automobile extended a city's sphere to a circumference of 30 miles. Now, comes the airplane and this circumference is stretched to 100 miles. And, just as many persons now drive 30 miles to town in their autos to their places of business, so will men living 100 miles distant go back and forth daily to and from their work in public airplanes or their own private planes."

Indeed, right at this moment, in Buffalo, N. Y., such daily trips to town from long distances are made by business men, and other great cities are scheduled to experience the same development as soon as they provide adequate airports. Not only has Buffalo a wonderful municipal airport, convenient to the heart of the city, but also, says Dr. Lewis, it already is planning to establish three or four smaller fields in the business district, so that persons landing in the big field

can get into smaller craft and debark within a few blocks of their destinations.

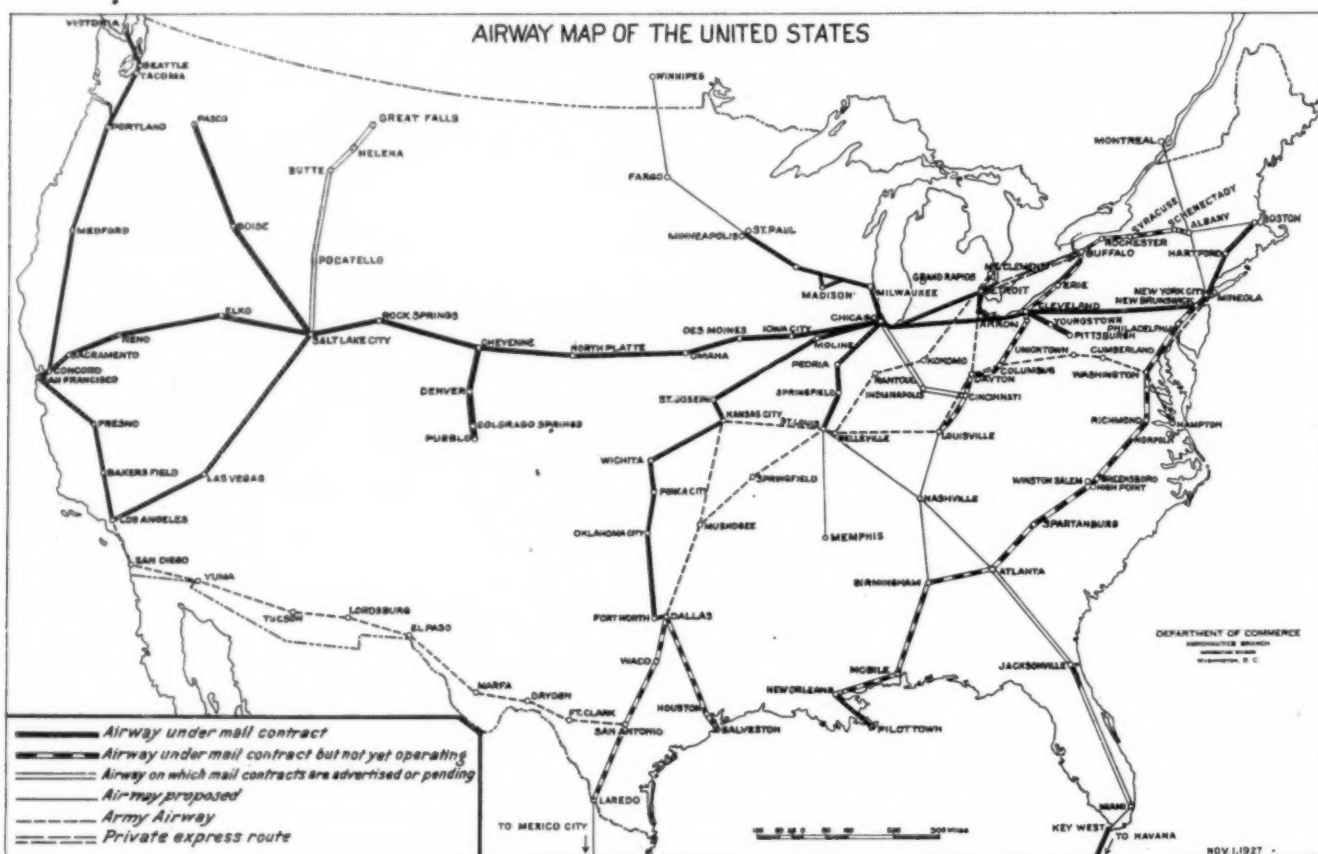
So it is that Dr. Joseph S. Ames of Johns Hopkins University, as chairman of the executive committee of the Committee for Aeronautics, advises all cities to establish their airports as near to their centers as is practicable.

"I lose nearly as much time getting from flying fields to business districts as I gain in flying between cities," says Clarence D. Chamberlain, a trans-Atlantic flyer.

This fact should be borne prominently in mind in every city and town in the South.

Before going into the subject of the South's needs for airports, however, it may be well first to take account of stock and ascertain where it now stands, in preparation for the

facilities. Jacksonville, Miami, Augusta, Atlanta, Houston, Shreveport—city after city in each Southern State claims a place on the aeronautic map, while very many lesser towns have attained the dignity of recognition in the Airway Bulletin of the aeronautics branch of the Department of Commerce. I pick up at random a bulletin devoted to Catarina, Tex., showing a map of "mesquite now being cleared away to enlarge landing field," and stating, among other things, that the field "is about 600 feet east and west (is being enlarged to 2000 feet) by 1500 feet north and south; surface is sand, rather hard and smooth; good drainage; south end of field 25 feet higher than north end." Another bulletin, also picked entirely at random, shows Deerbrook, Miss., "approximately 300 acres, divided by highway into 150-acre lots," with nearby



future. As summarized from a detailed statement given me by the Department of Commerce, the present airport equipment of the South is as follows:

State	Municipal	Intermediate	Govern't and miscellaneous	Total
Alabama	2	...	2	4
Arkansas	5	3	4	12
District of Columbia	3	3
Florida	13	10	9	32
Georgia	6	5	2	13
Kentucky	1	...	3	4
Louisiana	5	4	1	10
Maryland	2	8	6	16
Mississippi	1	3	...	4
Missouri	6	6	3	15
North Carolina	7	2	3	12
Oklahoma	5	27	9	41
South Carolina	3	1	3	7
Tennessee	3	3	2	8
Texas	23	43	23	89
Virginia	2	5	11	18
West Virginia	1	5	1	7
Totals	85	125	85	295

Of this total, at the time of writing, 22 are noted as "under construction," or "proposed."

So, on this substantial foundation, the South is constructing a system of airports which ultimately should equip it adequately for complete enjoyment of every advantage to be gathered from the most modern of traffic and transportation

accommodations for pilot and passenger, commercial gasoline and motor oils at Granary Plantation and "prevailing wind in summer, south and southeast, and in winter, north." Uncle Sam is keeping a mighty keen eye on the South as a foremost field in the aeronautic service and he proclaims to the world at frequent intervals information on every airport within its area.

Recently opened at Augusta, Ga., is one of the finest airports in the South and destined to a position of great prominence in the airline network which commercial transportation is weaving from north to south and from east to west, and interweaving with ever-inclusive connections. The new field occupies 300 acres of land overlooking the city and in reality is within a stone's throw of the city limits and within a quarter of a mile of the trolley line. Right now, the energetic people of that city are working very hard for an air mail route from the East to Florida via Columbia, Augusta and Savannah, which, they figure, will be 150 miles shorter than any other route. The Augusta field was named Daniel Field, in honor of Mayor Raleigh H. Daniel.

In regard to an airport at Miami, Hollis Bush, a director of the Greater Miami Airport Association, explains that it will include a landing place for land planes and a seaplane

base, the former about eight miles northwest of the center of the city. "This field," says Mr. Bush, "is located at the intersection of two main thoroughfares, both of which are paved, and along the eastern edge of the field is the main line of the Seaboard Air Line." Contracts have been let for the seaplane base, on the Venetian causeway, with necessary aprons and the paving of the beach so that ships may be pulled up for inspection and repairs; also, waiting rooms, offices and supply stations for gasoline, oil and other necessities are being established. In detailed information on the Miami airport, a Government bulletin says it is 2500 feet square, with a surface of natural sod and good natural drainage. "Winds of 40 miles per hour or over are recorded very rarely," says the bulletin, and "dense fog occurs about two days per year and only during the months of December to April," while "light fog averages one day per month during December, January and February," and infrequently during other months. "All fogs occur during the night or early morning hours and are usually dissipated by 9 a. m.," the bulletin adds.

So it was that, recently, in discussing his observations of aviation in France, Joseph Frank told the members of the Greater Miami Airport Association that "French aviators believe that Miami should be the headquarters for aviation for flights to countries south of the United States and to Spain," and so it is that a mail contract recently was awarded for service between Miami and Atlanta, via Jacksonville—only one of the many prospective routes that will bring Southern cities into intimate touch with each other, and all the South within intimate touch with all the rest of the country.

At the Atlanta end is Candler Field, to be developed into an airport of finest type, while in Jacksonville the intermediate stop will be made at a field "about 2800 feet north and south and 3000 feet east and west, with surface of good hard-packed sand," as the Department of Commerce describes it.

Typical of the up-to-date airports of the South is that at Houston, Tex., one of the very many airports of the Southwest—a section which seems to have grasped the importance of such facilities. Approximately, nine miles from the post-office, or 25 minutes by automobile on a fine highway, this airport has a landing field of 2620 square feet within the boundary lights. The soil is of sandy loam, sown with Bermuda grass, and there are no runways, as the field can be used for landings and takeoffs in any part. Steel hangars, of trussless roof, designed by the Arch Construction Company of New Orleans and erected by C. J. Frankel, contractor, Houston, are provided, and each is furnished with a shower bath, lavatory and such equipments for convenience and comfort. The boundary lights, for which the cable and fixtures were furnished by the General Electric Company, form a most important feature, while a beacon light, wind cone and ceiling light further modernize this complete airport. The airport is connected with the modern water and sewage systems of the subdivision, Garden Villas, and electric power is supplied by the Houston Lighting and Power Company.

"Winston-Salem has the distinction of being the first city in North Carolina, and one of the number in the South, to have a completely equipped modern airport," is the claim of the residents of that progressive community, and the Government describes it as 90 acres, with sod surface and two runways, 2300 by 500 feet north and south, and 1800 by 500 feet east and west. There is no landing fee and accommodations include personnel for servicing, a fine hangar and other equipment.

And so one might run through every State in the South, showing scores of cities and towns already well equipped, or preparing for early entry into the aeronautic system. As this is written, Baltimore is considering the respective advantages of 14 possible sites for a municipal airport to cost \$1,500,000; Shreveport, La., is considering ways and means

and looking for a suitable site. A score of others are equally interested and active.

In the meantime, the aeronautics branch of the Department of Commerce thus enumerates the airports of the South, as of June 30, 1927, the designations of "municipal," "intermediate," and so on, being here omitted:

Alabama—Anniston, Birmingham, Mobile, Montgomery.
 Arkansas—Bentonville, El Dorado, Hot Springs, Little Rock, two; Lonoke, Monticello, Newport, Ogden, Paragould, Pine Bluff, two.
 District of Columbia—Anacostia, two; Arlington, Va.
 Florida—Arcadia, two; Avon Park; Bartow; Ft. Myers; Hialeah; Inverness; Jacksonville, three; Key West, two; Miami, two; North Labelle; Ocala, two; Okeechobee; Orlando; Palmdale; Pensacola; St. Augustine; St. Petersburg; Sanford; Sarasota; Sebring; Tallahassee; Tampa, two; Titusville; West Palm Beach; Winter Haven.
 Georgia—Americus; Athens; Atlanta; Augusta; Fort Benning; Macon, two; Madison; Rome, two; Savannah; Tifton; Valdosta.
 Kentucky—Camp Knox; Covington; Louisville; Owensboro.
 Louisiana—Alexandria; Baton Rouge; Lake Charles; Monroe; New Orleans, three; Shreveport, two; Tallulah.
 Maryland—Aberdeen; Baltimore, two; Bowie; Camp Meade; College Park; Cumberland; Edgewood Arsenal; Elk Mills; Frostburg; Grantsville; Hagerstown; Hancock; Havre de Grace; Laurel; Oldtown.
 Mississippi—Clarksdale; Greenville; Jackson, two.
 Missouri—Anglum; Bucklin; Kansas City, three; Kirksville; Marshall; Memphis; Queen City; Richland; St. Joseph; Sedalia; Springfield; Sullivan; Unionville.
 North Carolina—Asheville, two; Charlotte; Fayetteville; Greensboro; Henderson; New Berne; Pinehurst; Reidsville; Salisbury; Tarboro; Wilmington.
 Oklahoma—Ardmore; Bartlesville; Blackwell; Blanchard; Chandler; Chickasha; Cleveland; Clinton; Coalgate; Drumright; Duncan; Edmond; Enid; Fort Sill; Guthrie; Healdton; Hennessy; Henryetta; Holdenville; Kingfisher; McAlester; McLain; McLoud; Miami; Muskogee; New Kirk; Oklahoma City, three; Okmulgee; Paul's Valley; Perry; Ponca City; Purcell; Shawnee; Texola; Tishomingo; Tulsa; Wagoner; Walters; Woodward.
 South Carolina—Columbia; Florence; Fort Mills; Fort Moultrie; Greenville; Parris Island; Spartanburg.
 Tennessee—Chattanooga, Cleveland, Jackson, Knoxville, two; Memphis; Nashville, two.
 Texas—Abilene, two; Albany; Alice; Alief; Alpine; Altaloma; Angeles; Aransas Pass; Austin; Beaumont, two; Big Springs; Brackettville; Brownsville, two; Bryan; Camp Travis; Carrizo Springs; Castroville; Catarina; Childress; Chispa; Cline; Comstock; Dalberg; Dallas; Del Rio; Dryden; Eagle Lake; El Paso; Farwell; Fort Worth; Fort Hancock; Galveston; Gonzales, two; Hondo; Houston, three; Laredo; Leon Springs, two; Longfellow; Marathon; Marfa; Marlin, two; McAllen; McLean; Mercedes; Midland; Mineral Wells; Munster; Odessa; Orange; Palestine; Pavo; Pecos; Port Arthur; Pumpville; Rio Grande; Sabinal; San Angelo, two; San Antonio, four; Sanderson; San Diego; Sherman; Shumla, two; Slidell; Sierra Blanca, two; Spur; Sweetwater; Temple; Toyah; Valentina; Victoria; Waco; Wellington; Wharton; Wichita; Wills Point.
 Virginia—Arlington; Cobham; Dahlgren; Fort Eustis; Hampton Roads; Hampton; Irvington; Lee Hall; Leesburg; Lynchburg; Martinsville; Norfolk; Petersburg; Quantico; Richmond, two; Staunton, two.
 West Virginia—Charleston; Green Spring; Keyser; Martinsburg; Morgantown; Moundville; Petersburg.

Moreover, it is interesting to note that in a list of 83 pilot licenses announced by the Department of Commerce on November 1, appear the names of 23 Southern flyers, while at the head of "Identified Aircraft" appears the name of Miss Virginia Baird of Houston, with Mrs. R. B. Pidcoke of the same city third on the roster.

And what do aviation and participation in aeronautics mean to the South? All cannot be told within reasonable space. Even now in the South the airplane is used for a variety of purposes that make it of tremendous value to that section. Plants are "dusted" from the airplane to rid them of bugs or as a plant disease preventive. Farms are surveyed and possible farms are outlined by engineers in the airplane.

Fertilizing and planting are done from airplanes. The volume of cotton or other crops is computed with fine approach to accuracy, and routes for proposed highways or railroads are outlined. And all this without reference to the value of the airplane in time of flood or storm or other disaster, in the saving of life and property and in a dozen other ways for the relief of suffering people.

"Air travel is widespread in Europe today—one can go anywhere safely and quickly by airplane," says the Hotel Gazette. "Air transport lines are springing up throughout the United States and will revolutionize travel within the next few years—what is it going to mean to the hotel fraternity?" Briefly, it may be said that this means tremendous stimulation of travel and great increase in hotel patronage in every section. Nor is one a visionary who may predict that in time not far distant large hotels will provide landing fields, just as they now furnish garages for automobiles. And the hotel business, one may note, is a great business in the South.

Indeed, says a news article from San Antonio, "Texas will be the scene of the first world air fair, and part of it will be held in Houston, if plans of Rufus Fenner Scott, Jr., of Paris, Tex., materialize." And the South is the logical site for such an exposition—the mother of the American railroad and the cradle of the American airplane, and now the mecca of national automobile travel.

So it is that the Greater Miami Airport Association plans, among other things, "to further interest in aviation along the East Coast of Florida and to make practical the establish-

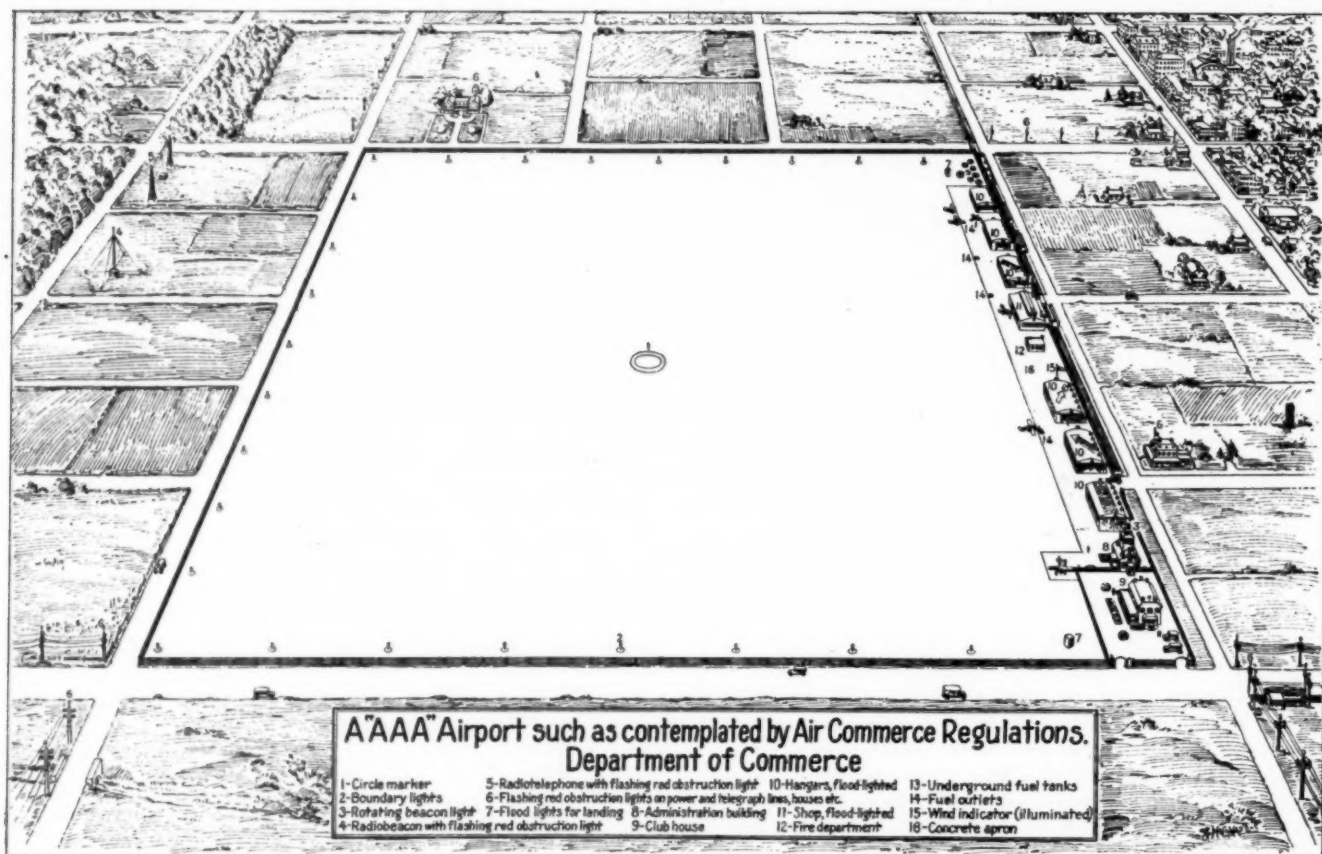
W. K. Nackley, Hollis Bush, S. P. Robineau, E. J. Sellard and Francis M. Miller.

As a practical stimulant for aeronautics in Florida—a State of unsurpassed opportunity in aeronautics—suggestion has been made that part of the gasoline tax collected in that State shall be used in the development of airports. Of the "gas" tax of five cents a gallon, four cents is used for highway construction and the Greater Miami Airport Association proposes that one-half cent of the tax shall be used for airport development. As R. M. Davidson, city manager of Coral Gables, explains to the MANUFACTURERS RECORD:

"The present gasoline tax in Florida amounts to \$11,000,000 or \$12,000,000 a year. Obviously, there are counties unable to raise money for airport purposes and a State appropriation would greatly hasten the progress and development of air transportation in Florida. The State has reached advanced stages in its highway development and without handicapping this work could easily divert part of the funds to the now urgent necessity of encouraging and providing facilities for air transportation. Airports for the larger cities are of little use unless intermediate emergency fields are provided. We want Florida to take the lead in this respect."

And speaking of "emergency fields," the development of aeronautic routes is helpful to many individual farmers throughout the South, enabling them to rent fields as emergency landing places along main lines or connecting lines.

"Properly," says Dr. Lewis, "an air route should be punctuated with emergency landing fields approximately every 15 or 20 miles on its stretch, and these very frequently are provided by renting fields from farmers for the purpose. For reasonable, yet adequate, consideration, a farmer rents a



ment of air lines, both mail and passenger," much to be accomplished by the East Coast Airport Association of Florida, which the former organization is promoting. The officers of the Greater Miami Airport Association are: Honorary president, Glenn M. Curtiss; president, R. V. Waters; first vice-president, O. A. Sanquist; vice-presidents, Walter W. Burns and C. W. Chase, Jr.; treasurer, C. D. Leffler; executive secretary, Lee L. Spring; directors, B. B. Freeland, J. E. Yonge,

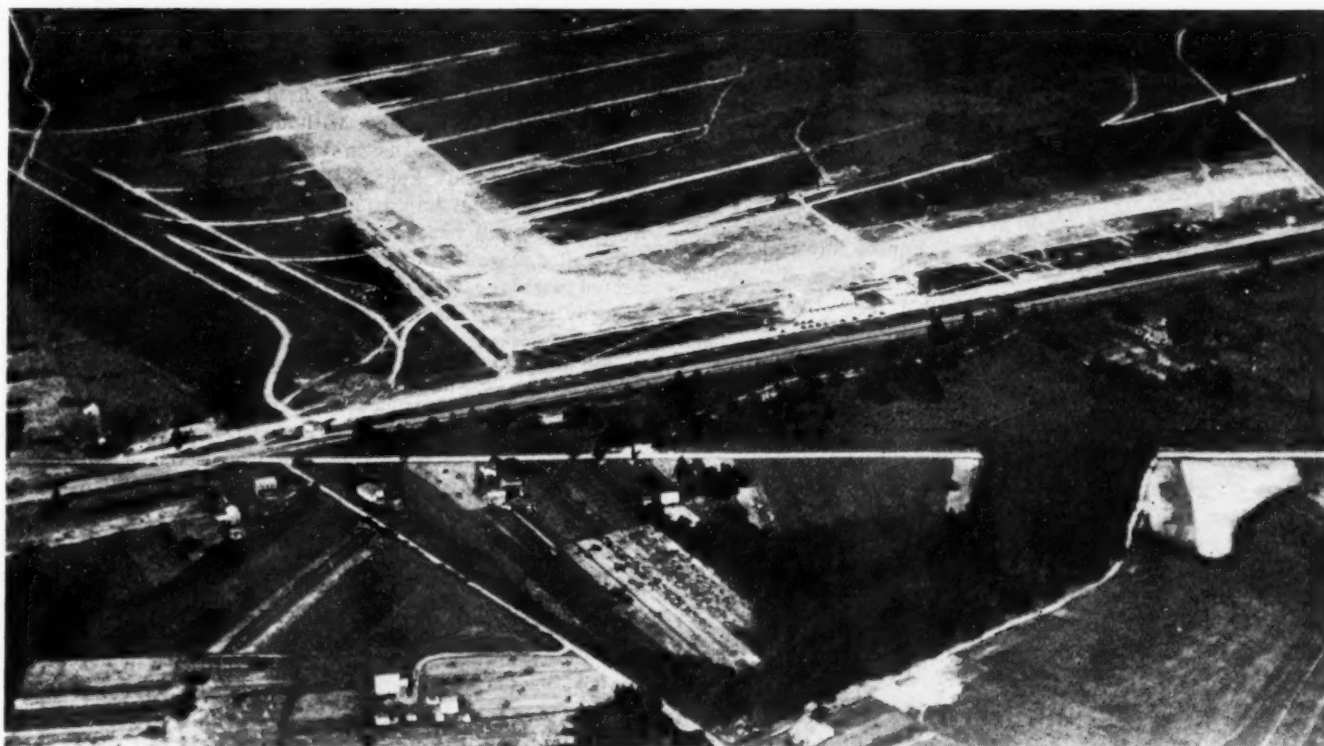
field and agrees not to plant crops that will interfere with the landing of an airplane in distress. He may use it for various purposes, only keeping it clear as a landing place. This gives the aviator safety spots on which to land and also gives the farmer an income for a field which he well can spare for the purpose."

As an important amendment to this plan for such emergency landings at 15-mile intervals, however, a suggestion

has been advanced—first, I believe, by the **MANUFACTURERS RECORD**—that existing highways be broadened at strategic points to sufficient width to permit the landing of distressed airplanes, without undue danger to land travelers along the land routes. Already, experience shows that only the most recently constructed highways are sufficiently wide to accommodate the automobile traffic of the present day, and from all indications these, too, must be widened within a very few years to keep pace with the increase in auto traffic. Roads constructed as late as a decade ago are found all too narrow for present traffic and throughout the land such roads are

aeronautic director, aviation construction for 1927 totaled \$20,000,000, an increase of 60 per cent over the preceding year, and he predicts that in 1928 at least 1000 airports will be in use.

And coincidentally appears a statement in the *Wheeling, W. Va., Register* that "the Ohio Valley Industrial Corporation has been successful in landing a new \$1,000,000 industry for the city—an airplane producing plant, to occupy 35 acres in close proximity to Langin Field at Glendale." Also, announcement is made that in the spring St. Louis will become one of the largest airplane manufacturing centers in the country,



BYRD AIRPORT, RICHMOND, VA.—A NEW FIELD OF GOOD SIZE WITH RUNWAYS AND COMPLETE LIGHTING FACILITIES.

being almost doubled in width, or at least are provided with "shoulders" to stretch their accommodation to more generous proportions.

In new road construction, it would be far easier and less expensive to stretch the width to a limit to include airplane emergency service, as well as normal auto traffic. The practicability of the plan, indeed, was recently demonstrated in Detroit, where a flyer from the Ford airplane plant landed in Woodward avenue, one of the main thoroughfares of the city. Of course, he did not select a section congested by auto traffic, nor is it likely that such traffic would be prevalent and continuous along the length of highway on an airplane line; but, the fact was demonstrated that a safe landing can be made on a reasonably wide highway, and that is the main point for consideration at the moment. Indeed, in preparation for the first flight ever made over a city—in Baltimore, November 7, 1910—the late Hubert Latham counted on some of the wide streets as possible landing spots in case of emergency. "What water have you around the city?" he asked me, as originator of the flight, before he undertook it. "How about parks?" was his second question; then: "Have you wide streets on which one might make a landing, if his motor balked?"

The widening of existing highways and wider range in prospective highways will go far toward promoting the industry of airplane transportation, for passengers and mail and freight.

Finally, the promotion of aeronautics in the South means industrial stimulation, for, says Clarence M. Young, Federal

through construction of a factory in that city by the Curtiss-Robertson Aircraft Corporation. With capital of \$250,000 and a business objective of \$1,000,000 a year, the company will manufacture commercial airplanes of the Curtiss type, heretofore designed chiefly for military purposes.

Notwithstanding an impression that America lags in the production and use of commercial and passenger airplanes, Dr. Ames asserts that the United States leads the world in aviation.

"There are more privately owned airplanes in operation in the United States than in all the rest of the world put together," says Dr. Ames, and adds that "there are now in the United States 12 factories building planes entirely for private use."

Indeed, as this is written, announcement appears of the consolidation of seven aircraft companies into the Fairchild Aviation Corporation of Delaware, with paid-in capital of \$1,553,550, which, with the recently organized Fairchild Realty Corporation, with a paid-in capital of \$400,000, will bring the active Fairchild interests to almost \$2,000,000 of capital to be devoted to aviation and the promotion of aviation. The Fairchild Aviation Corporation is to be the holding company for the Fairchild Aerial Camera Corporation, Fairchild Aerial Surveys, Inc.; Fairchild Flying Corporation, Fairchild Aviation, Ltd.; Fairchild Caminez Engine Corporation, Fairchild Airplane Manufacturing Corporation and Compania Mexicana de Aviacion.

"I feel that 1928 will be an exceedingly active year for the

development of aviation all over the world," says Mr. Fairchild. "The fact that business men and large corporations, in addition to sportsmen, now are buying planes for intercity travel, coupled with the fact that landing fields literally are springing up overnight, indicates that the demand for airplanes and engines in the coming year will exceed the best expectations of those in the industry."

Moreover, in the spring the South need not be surprised by an aerial invasion by the army of professional baseball players who annually do their training on the fields of Florida and other Southern States. For strong advocacy of air travel by these baseball clubs has been expressed by one of the leaders in that great business field, and it is not unlikely that ere long the players will make their intercity trips by airplane, instead of the traditional "rattlers," as the sports writers speak of railroad trains.

Already capital in an aggregate of at least \$24,000,000 wings its way daily into Wall Street, embraced in checks from out-of-town banks which use the airplane to save from one to three days from train service and thus, at from 3 to 4½ per cent, to save interest charges running into tremendous figures. For instance, the First National Bank of Wichita, Kan., saved \$1144 in interest between May 12, 1926, and

has an important value as a recreation facility similar to city parks, golf courses, equestrian trails, bathing beaches, etc., and it should be a municipal enterprise," says a Department of Commerce bulletin. In general, it adds, the airport should be large enough for absolute safety of operation, easy of approach from all directions and quickly reached from the city.

"At first," says the department, "the municipal hangars may be available for housing public planes and public transportation craft. Later, when traffic becomes too heavy, the municipal airport will become a place for the mere taking on and discharging of passengers, mail, express and freight. It will be to the airway what the railroad terminal is to the railways."

In the selection of a site, the field should be firm, approximately level, well drained, without obstructions or depressions presenting hazards in taking off and alighting, and with clear and safe approaches. Proximity to the nearest city or town is an important factor, as "an airport 15 miles from a city will not be as valuable as one within three or four miles," while the airport should be conveniently connected with the city or town by automobile or trolley, or even by train. It is well to have a large area at the outset, says the department, and the matter of expansion always should be kept prominently in mind.

Much valuable information in regard to the construction of airports can be found in bulletins issued by the aeronautics branch of the Department of Commerce, such, for instance, as "Construction and Rating of Airports," by D. E. Keyhoe.

Also, encouraging to the South is the recognition just given by the Government in a bill to authorize the construction of technical buildings at Army aviation stations, to replace war-time structures. Carrying a total of \$3,607,716, this measure would give \$976,247 to the South, or over 27 per cent, the projects being:

Bolling Field, Washington, D. C., supply warehouse, \$38,000; administration building, \$42,000; total, \$80,000.

Fort Crockett, Galveston, Tex., \$30,644.

Kelly Field, San Antonio, Tex., hangars, \$316,000; radio, parachute and photographic buildings, \$56,000; hangars for airdrome gunnery and bombing range, \$79,000; field shop, \$81,000; other items, \$78,000; total, \$610,000.

San Antonio Air Depot, \$14,177.

Fort Sam Houston, San Antonio, \$3858.

Langley Field, Hampton, Va., heating plant for hangar, \$6068.

Maxwell Field, Montgomery, Ala., hangar, \$39,500; field shop, \$81,000; headquarters and operating buildings, \$40,000; radio, parachute and photographic buildings, \$56,000; night flying lighting system, \$15,000; total, \$231,500.

And not only does President Coolidge foresee close airplane connection across the South between the United States and its southern neighbors in Mexico, Central America and South America, but also Lieut. Lester J. Maitland, assistant executive to the Assistant Secretary of War for Aviation, tells how regular lanes can be laid out for air navigation, just as trans-Atlantic steamers follow certain lanes, or almost as the automobile follows the highway.

For guidance of the aviator, Lieutenant Maitland explains, the radio sends out dots and dashes in Morse code, broadcasting the letters A, T and N. As long as the air navigator hears the T, he knows he is in the center of the road; a swing to the right gives him the A, instead of T, and a swing to the left is indicated by the letter N. The T line on a course between two points is the T zone, the center of the road; either A or N warns the aviator that he is off his course and coincidentally instructs him which way to turn to



THE FIRST FLYING STORE.

Miss Mary Crocker making purchase from big Fokker airplane which made a commercial flight to many large cities.

November 7, 1927, in this manner, and of 2006 pieces of mail sent by airplane, 1400 arrived on schedule time. Again, the Illinois Merchants Trust Company forwarded to New York 23 letters containing \$32,000,000 in August, and on the 12 which arrived on time saved \$1700 in interest in one day. The value of such service for the South hardly can be computed.

"The most significant characteristic of American aviation is the increase in the number of privately owned airplanes and the increase in the number of commercial flying enterprises which are operated without the cash subsidies that support commercial aviation in other countries," says the most recent report of the National Advisory Committee for Aeronautics. "It is difficult adequately to draw a word picture of the effect that aeronautics is destined to have on the economic life of the Nation."

As described by the Department of Commerce, the construction of an airport is not an undertaking of such magnitude as might stagger any city or town in the South; on the contrary, it is comparatively simple and the expense may be considered almost negligible in comparison with the direct and indirect returns in many lines. For, "the commercial value of an airport is not its only consideration; it

get back into the lane. So, too, after darkness has fallen, the radio operates lights on the navigator's instrument board, a white light showing the true course, red indicating a swerve to the left and a green light a swing to the right. Thus the air navigator has guides as true and intelligible as the buoys and buoy lights on a river. Indeed, Lieutenant Maitland prophesies "invisible electric highways" for the airplane, as distinct as a highway for an automobile.

As this is written, a quartette of Baltimore aviators is touring the great Shenandoah Valley, to stimulate interest in aeronautics and to inspire the establishment of landing fields along that route which in time will make it as popular with air travelers as it now is with automobilists. From the northward, the numerous possible routes would converge at Winchester, home of Governor Byrd of Virginia, brother of Commander Byrd, the famous aviator—indeed, Governor Byrd himself has become a flyer. Along the Valley are scores of spots suitable for landing fields—at New Market and Harrisonburg, down to Staunton and through Marion to Bristol, Tenn. It is an ideal country both for short distance flying and as a section of a through route from North to South.

No section of the country now is making greater strides in industrial development than the South. The South must turn its attention to aviation, not only as an industry in itself, but also as a great factor in the promotion of other industrial expansion.

Atlanta Air Mail Starts March 1.

Institution of regular mail service between New York and Atlanta on March 1, next, is announced by the aeronautics branch of the Department of Commerce, which describes this airway as "one of the most important in the United States." This route, it adds, will serve "the industrial cities of Atlanta, Spartanburg, Greensboro, Richmond, Baltimore and Philadelphia and also the capital and the metropolis of the nation."

As described by the department, this airway is 763 miles long and is lighted by 80 powerful rotating airway beacons and 30 intermediate landing fields, lighted for night flying. The route, says the department, "has been one of the most difficult to lay out, owing to the scarcity of landing fields." The public interest along the line, says the official announcement, "has been gratifying to the department," and it expresses appreciation for the assistance rendered by municipalities, several of which have provided intermediate fields and turned them over to the department for a nominal rental.

The mail schedule calls for departure from both the New York and Atlanta ends at 9 o'clock in the evening, the service to be operated by Pitcairn Aviation, Inc.

Survey of the Louisville-Cleveland airway is reported as progressing satisfactorily.

In a list of 190 pilot licenses recently issued, 57 were for residents of the Southern States, or 33½ per cent.

Rates at Richard E. Byrd flying field, Richmond, are announced by the department: Live storage in hangar, with service, \$50 a month; dead storage, \$25; overnight, \$2.50; labor, \$2 an hour.

Five-Story Addition for Three-Story Building.

Oklahoma City, Okla.—The construction of five additional stories to the three-story Shops Building at Main street and Hudson avenue in this city has been announced by Frank P. Johnson, president of the American-First National Bank, owner of the property. The additional stories will provide space for more than 300 additional offices. Hawk & Parr of Oklahoma City are the architects.

Transforming Power Into Happiness—Electric Energy Serves 80,000,000 Americans.

"In the United States is used nearly as much electricity as in all the rest of the world," said President Matthew S. Sloan, of the Brooklyn Edison Company at the 21st Annual Convention of the Association of Life Insurance Presidents held recently in New York. Mr. Sloan declared that the electrification of American industry has put today behind the American worker who is backed up by a power plant, between three and four horse-power of energy where formerly he disposed only of his own strength. In that it has measurably eased the burden of physical effort for men and women throughout the land; electricity has added to human happiness. Measured in electric energy each worker commands and directs the energies of a gang of 30 or 40 men.

"It is, perhaps, not necessary for a representative of public relations between your companies and our companies," said relations which exist between your companies and our," said Mr. Sloan. "We of the utilities understand the broad significance of the fact that more than a billion dollars of life insurance company funds are invested in the securities of public utility companies, and the further fact that the proportion of life insurance funds thus invested is largely increasing year by year. We know that such investment expresses the judgment of seasoned experts, but we know also that beyond that it represents knowledge of the value of utilities as builders and constructors in present-day life."

Speaking specifically as to the electrical branch of public utilities, Mr. Sloan said that the power and light industry of today dates from 1882. In less than half a century it has girdled the globe, and it has reached its highest state of perfection in the United States. Today it serves some 80,000,000 of the American people. It is a true and large scale conservator of natural resources, for it has put to work waters which otherwise would run useless to the sea, and it has developed a remarkable efficiency in the use of fuels in power production. Whereas long distance transmission of electric power was limited to 20 miles in 1901, today it is successfully distributed at a distance of 250 miles. Mr. Sloan continued:

"Read into what I have said as much as you choose of striving, disappointments, travail, human sweat and blood, human devotion, idealism. All these elements are a part of the record. That record represents the breaking down of technical and financial frontiers—achievements in creating a sound, stable, progressive business. It represents more—it represents achievement in creating a truly marvelous agency of public service which has broken down social frontiers by transforming power into happiness.

"If electrical power had done nothing but remove the drudgery, the hard, sweat-compelling, spirit-killing labor from home and factory, it would have done much for human happiness. It has done more. It has added to the hours of leisure to be enjoyed by the woman of the home and the worker of the factory. It has left them physically and spiritually in condition to enjoy those hours of labor. Anyone who has traveled in other countries and had even superficial opportunities of comparing the life of the workers and their families there with the life of ours cannot have failed to note a vast difference. Our people by comparison lead lives full, rich, happy—lives in which opportunities are realized, with further opportunities ahead."

Discussing the rapid extension of electric service to farms, Mr. Sloan said:

"Perhaps some of you remember the farm of a generation ago with firewood to cut, water to haul from the well or creek, oil lamps and lanterns to clean and fill, and all the farm labor to be performed by animal and human muscle. That's the kind of farm life boys and girls took every desperate opportunity to get away from. It's a far cry from that to a farm with modern electric service—with an electric range, water pumped by electricity, homes and barns and out-

buildings electrically lighted, electric hay-hoists, milking machines, electric refrigeration for dairy and fruit storage, electric motors for general utility purposes. All that electricity has done for the city home and for the factory it is coming to do for the farm and the farm home. As electricity has taken the back-breaking drudgery out of factory work and greatly increased factory production at lowered unit cost, so it is taking the toil—the muscle work—out of farming and reducing the cost of crop production. That is one of the remaining frontiers which electricity is breaking down, and I don't think of any one piece of work ahead of our industry which is more important in its social and economic implications."

\$1,000,000 Church and Office Building.

Knoxville, Tenn.—Plans are being considered by the Church Street Methodist Episcopal Church, South, Dr. P. R. Knickerbocker, pastor, for the erection of a new \$1,000,000 church and office building here on the site of the present church and adjoining property. Details covering the enterprise have not been determined, but tentative plans call for the purchase of property at 613 Market street, the construction on this property of a new office building, erection of a church on the site of the present building and to use all the lot now owned by the church for an educational building. John Russell Pope of New York is the architect and Barber & McMurtry, Knoxville, associate architects. H. L. Dulin is chairman of the building committee.

INCREASED EXPORTS FOR SECOND QUARTER.

Compared With Similar Period of 1926—Gain in United States Was \$79,799,000; Nearly \$20,500,000 in South—Texas Ranks Second of All States.

Merchandise exported from the United States during the second quarter of 1927 was valued at \$1,135,803,000, compared with \$1,056,004,000 for the corresponding period of 1926, an increase of \$79,799,000. Total exports for the Continental United States alone during the second quarter of 1927 were \$1,132,824,000, compared with \$1,053,046,000 for the second quarter of 1926.

Exports from the South were valued at \$344,785,000 during the second quarter of 1927, or an increase of \$20,466,000, compared with \$324,319,000 of exports for the second quarter of 1926.

The value of exports of half of the States and possessions of the United States increased during the period under discussion, while the remaining 26 suffered losses. The Southern States reporting an increase in exports include Arkansas, Florida, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee and Texas, which alone had an increase of nearly \$20,000,000.

The first 10 States in order of value of exports were New York, with exports valued at \$188,204,000; Texas, \$113,087,000, followed by Michigan, Pennsylvania, Colorado, Louisiana, New Jersey, Illinois, Ohio and Wisconsin. Other States to increase the value of their exports were Minnesota, Indiana, Connecticut, Utah, Kansas, Maine, Vermont, Oregon and Nevada.

Dr. Julius Klein, director of the Bureau of Foreign and Domestic Commerce, under whose supervision the figures were compiled, calls attention to the fact that they are based primarily on through bills-of-lading and, therefore, in the case of some States they reflect but a part of the total foreign trade and for others include goods produced elsewhere.

Following New York, Texas ranked second of all States, having exported during the second quarter of 1927 more than

\$113,000,000 of merchandise. The next Southern State is Louisiana, with exports valued at \$62,858,000, which ranked sixth among all of the States of the Union.

DOMESTIC EXPORTS FROM THE UNITED STATES, BY QUARTERS AND BY RANK OF STATES.

States from which shipped	Second quarter, 1927	Second quarter, 1926
1. New York	\$188,203,647	\$185,145,178
2. Texas	113,087,116	93,759,687
3. Michigan	94,463,076	67,567,330
4. Pennsylvania	74,911,406	75,200,391
5. California	74,846,108	66,734,615
6. Louisiana	62,858,915	60,148,439
7. New Jersey	57,429,519	54,481,558
8. Illinois	52,602,121	48,481,424
9. Ohio	51,378,771	40,763,539
10. Wisconsin	35,699,540	27,706,487
11. Massachusetts	30,319,510	30,517,648
12. Minnesota	25,568,259	22,547,849
13. Washington	24,359,243	25,251,895
14. Georgia	22,971,354	23,767,575
15. Virginia	21,265,267	29,342,020
16. Indiana	19,911,292	16,919,287
17. Maryland	18,377,982	16,856,183
18. North Carolina	13,799,712	12,864,572
19. West Virginia	13,534,161	16,905,655
20. Connecticut	12,761,379	11,546,522
21. Mississippi	12,566,926	9,288,312
22. Oregon	11,067,328	17,818,929
23. Tennessee	10,547,951	6,880,725
24. Alabama	9,955,503	10,715,619
25. Missouri	9,569,324	9,879,321
26. Iowa	8,730,258	8,739,030
27. South Carolina	8,331,506	6,521,713
28. Kentucky	8,230,878	8,514,422
29. Florida	7,953,154	7,078,678
30. Kansas	6,217,730	5,387,123
31. Oklahoma	6,122,756	6,904,378
32. Arkansas	5,453,501	4,781,047
33. Nebraska	3,581,294	4,354,180
34. Rhode Island	3,533,423	3,988,092
35. Porto Rico	2,128,028	2,465,058
36. New Hampshire	1,940,561	2,040,845
37. Maine	1,716,306	1,482,294
38. Arizona	1,540,817	1,841,011
39. South Dakota	1,299,879	1,914,656
40. Montana	1,232,863	2,895,454
41. Delaware	900,825	1,125,649
42. Colorado	834,908	966,409
43. Vermont	798,943	798,770
44. Hawaii	774,182	406,587
45. Wyoming	748,134	1,162,162
46. Idaho	504,193	528,620
47. Utah	413,338	140,275
48. New Mexico	257,677	391,304
49. Washington, D. C.	159,162	110,800
50. Nevada	154,249	119,826
51. North Dakota	112,860	168,015
52. Alaska	76,593	87,212
Total	\$1,135,803,219	\$1,056,004,430

Facts About Westminster, S. C.

The Westminster Chamber of Commerce, Westminster, S. C., has issued in form for convenient reference and study "Textile Facts and Industrial Survey of Westminster, Oconee County, South Carolina." The section is described as an ideal manufacturing location—in the Piedmont Carolina Section—with abundance of electric power, contented labor, a mild climate, economical living conditions on the trunk line of double track Southern Railway. The facts presented go to show that this is a suitable and good location for textile manufacturers or for a finishing plant. The information which covers nine large typewritten pages is conveniently classified and there is a handy marginal index to the different divisions. It is planned to distribute 1500 copies of this survey among Eastern textile manufacturers and industrial engineers, suggesting that they visit this part of South Carolina and see for themselves what it offers.

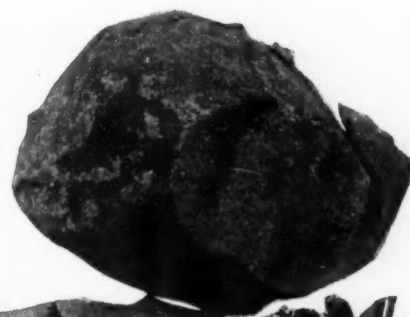
Textile Development Possibilities at Del Rio, Tex.

Elsewhere in this issue is an advertisement by the Central Power and Light Company, San Antonio, Texas, calling attention to the textile mill development possibilities of Del Rio, Texas, which is on the Rio Grande, 165 miles west of San Antonio. It is pointed out that there are no textile plants to handle the wool and mohair produced in that territory and that during the past five years 30,000,000 pounds was shipped from Del Rio to outside mills.

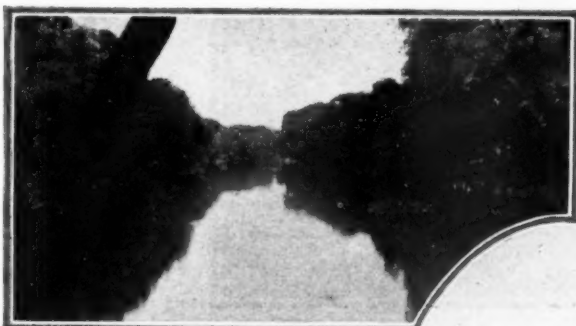
West Texas PROGRESS *Pictured*

Presenting the Evolution of Rugged Ranges and Unpeopled Prairies to Cattle and Sheep Ranches, to Diversified Farms and to Industrial and Commercial Communities Humming With Activity.

TEXAS is not all a prairie land; it has scenic spots of untold beauty and utility and as rugged a topography in its Western part as is to be found in any mountain region.



"BALANCING" ROCK, FREDERICKSBURG—
ONE OF TWO SUCH IN UNITED STATES.



A PLACID RIVER SCENE, WEST TEXAS.



PALO DURO CANON
CANYON, TEX.



NATURE WAS THE LANDSCAPE ARCHITECT
IN FASHIONING THIS BIT OF WEST TEXAS'
BEAUTY.



TEXAS' GRANDE CANYON
OF THE WEST.



A PICTURESQUE SPOT ON THE SAN SABA RIVER
NEAR MENARD.



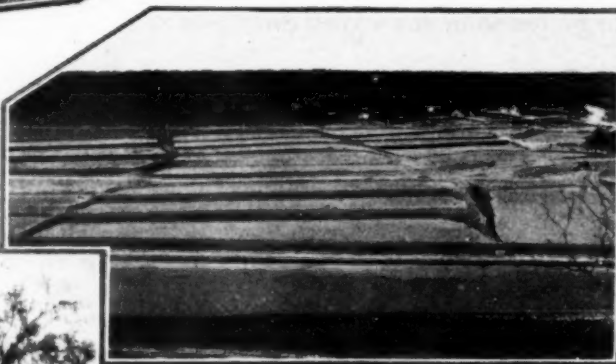
A PRESIDIO COUNTY SCENE.



AN IRRIGATED FARM IN THE
BIG BEND DISTRICT OF TEXAS.



A "COMBINE" IN THE FIELDS OF FLOYD COUNTY.



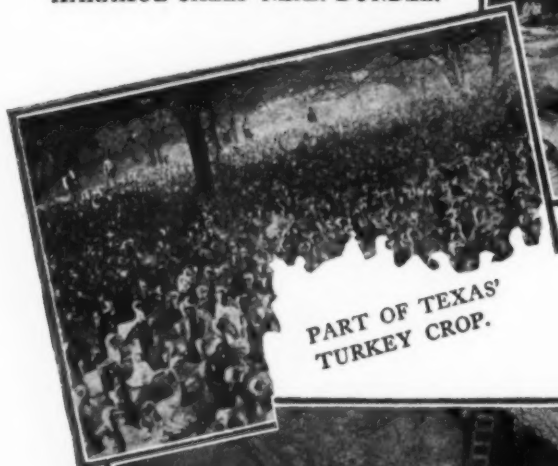
LARGEST BLACK BASS FISH HATCHERY
IN THE WORLD, KERRVILLE.



KARAKUL SHEEP NEAR DUNDEE.



GRANITE QUARRY—TEXAS HAS IMMENSE RESOURCES
OF THIS MATERIAL.

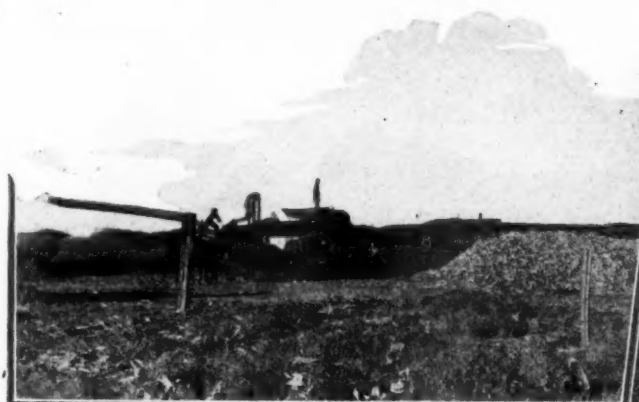


PART OF TEXAS'
TURKEY CROP.

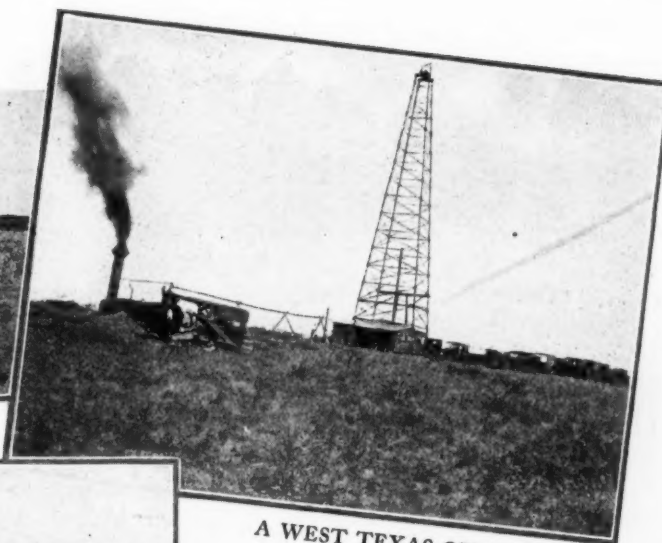


WEST TEXAS MINING SCENE.

WEST Texas today is an agricultural empire, in which cotton, feed and forage crops, small grains, truck and fruit products, livestock and poultry vie for leading positions. It is a section of almost limitless mineral possibilities and a region of unparalleled natural beauty, giving it great opportunity for resort fame. Many points are endowed with native and potential power which may in the future turn the wheels for great industrial and manufacturing enterprises, steps toward which are already evident in the number of existing plants.



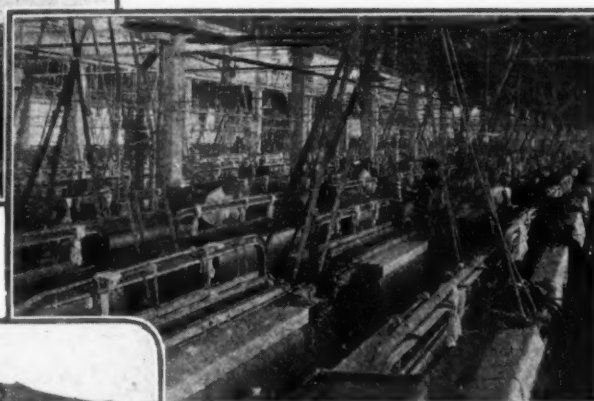
A WEST TEXAS THRESHING SCENE.



A WEST TEXAS OIL WELL.



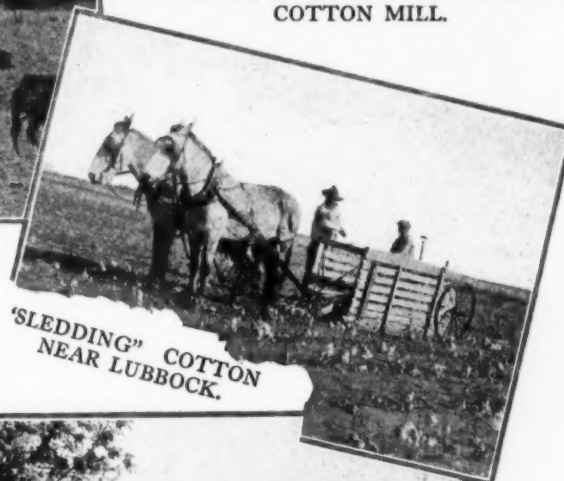
BROAD VISTAS STRETCH TO THE HORIZON



INTERIOR OF A WEST TEXAS COTTON MILL.



A WEST TEXAS RANCHING SCENE, NEAR MARFA.



"SLEDDING" COTTON NEAR LUBBOCK.

THE Old West, in the main, has disappeared forever, though many districts, from their topography, may never be more than cow or sheep sections. Other areas are dotted with progressive growing cities. Hundreds of West Texas towns are securing natural gas as fuel, and electric power, and thus completing the round of modern conveniences. Substantial building is in progress everywhere and former records are being shattered as schools, churches and public edifices are being constructed at a rate never known before.



ORCHARD SCENE, FT. DAVIS.



BEAUTY SPOT NEAR SAN MARCO.



PART OF KERR COUNTY'S GOOD ROADS SYSTEM.



A MODERN HIGHWAY IN WEST TEXAS.



MODERN BRIDGE CONSTRUCTION, JACK COUNTY.



AN ORCHARD.

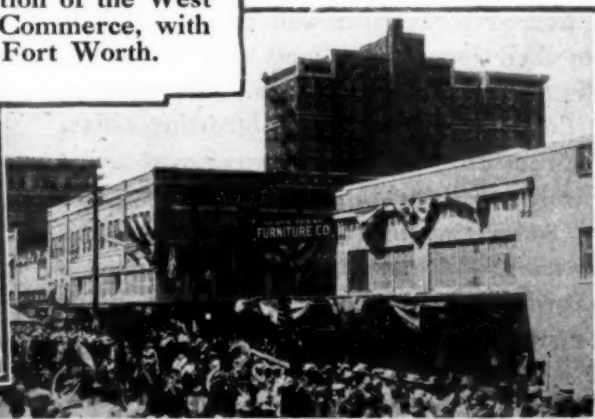
A DECADE ago a representative Western citizenship convened in Fort Worth and banded themselves together for a "unified development of the region as to its agricultural, manufacturing, livestock, mineral and industrial resources, for encouraging its educational development and for improving and extending its transportation facilities, as well as for stimulating its general prosperity and promoting its general welfare." West Texas today is fomenting with a constructive activity in those lines indicated in the mass-meeting of ten years ago, out of which was created the organization of the West Texas Chamber of Commerce, with headquarters at Fort Worth.



A "GUSHER."



ONE OF THE BEAUTIFUL HOMES OF WEST TEXAS.



WHEN WEST TEXAS CHAMBER OF COMMERCE MET AT WICHITA FALLS.

Miami to Celebrate Completion of Improvements Costing \$300,000,000.

TO MAKE CITY ONE OF WORLD'S GREATEST WINTER RESORTS—25-FOOT CHANNEL
COSTING \$5,000,000 FORMALLY OPENED.

[Special Correspondence Manufacturers Record.]

Miami, Fla., December 16.

From January 2 to 8, Miami will celebrate the completion of improvements costing more than \$300,000,000, which have contributed to make this city one of the world's greatest winter resorts. With this celebration the 1928 tourist season will be officially opened and it is stated that as many as 100,000 visitors may be entertained at one time, as ample accommodations will be provided by 50 new hotels and 600 new apartment houses. A program for the celebration will include the following: Monday, January 2, reception day; January 3, sight-seeing day; January 4, landing of Columbus—flower pageant; January 5, deep sea fishing tournament; January 6, Miami Beach day—beauty pageant, and January 7, Coral Gables day—outdoor sports tournament.

The city of Miami and the Miami Chamber of Commerce have united in plans for entertainment during the celebration and it is expected that the city will play host to more than 100 newspaper editors and special writers. The landing of Columbus in his fleet of ancient sailing vessels will be one of the traditional features of the Palm Fete. He will be greeted by the Seminole Indian tribe of Miami, whose happy hunting grounds lay just west of the city, in the Everglades. The braves will come down from the Big Cypress country in canoes and trappings and will invade the city just before the opening date.

In the parade of flowered floats, the colorful pageantry of the fete will be brought out. More than 70 floats will be entered and bizarre and fantastic designs will mark the outfits to parade in this event. Prizes will be awarded to floats selected by judges as the most original or unique in design. Plans also call for day and night fireworks over Biscayne Bay, and planes will drop bombs and other explosive pieces. Bay Front Park, Miami's new development, offers an advantageous place to view the display.

Probably no event on the program has aroused as much interest as the deep sea fishing tournament, to be held in the Gulf Stream under the auspices of the International Izaak Walton League. For those who do not enjoy fishing there will be a boat trip to the Marine Gardens, south of Miami, where sub-sea life may be studied by the use of a glass bottomed boat. Throughout the week the Mardi Gras spirit will prevail, while Miami will put forward every resource of entertainment for the visitors. Sweeping reductions in apartment and hotel rates are renewing interest in the city as a winter resort. There are now 136 hotels, 1200 apartment houses and 5000 cottages in the city, whose rate schedules have been approved by the Chamber of Commerce.

Among the major improvements are the 25-foot channel from the sea to the city, costing \$5,000,000; new Bayfront park, \$2,500,000; Biscayne boulevard, \$5,000,000; Venetian Causeway, \$2,500,000; New Olympia Theater, \$1,000,000; new ships of Clyde Line, \$5,000,000; new docks and warehouses, \$1,000,000; Dade County Causeway, \$1,000,000; new hotels and apartments, \$150,000,000; new 27-story courthouse, \$3,500,000; new office buildings, \$12,000,000; Dade drainage district reclaiming 200,000 acres, \$2,000,000; new public util-

ties, \$15,000,000; new street paving and bridges, \$5,000,000; new Federal highway to Jacksonville, \$12,000,000; Seaboard Air Line Railway into Miami, \$25,000,000, and double-tracking for the Florida East Coast Railway, \$61,000,000.

The opening of the new 25-foot channel from the sea, across the bay to the city docks, which has recently been completed, was formally celebrated on December 13. When the Florida East Coast Canal shall have been taken over and completed by the United States government and the Everglades drained and planted, it is thought Miami will develop into one of the most important seaport cities on the Atlantic and Gulf seaboard. The completion of the channel is not a matter of mere local interest, as approximately 200,000 people within a radius of 50 miles of Miami are looking to this city for water transportation for their fruits and vegetables to distributing markets in the East.

The new harbor has already bettered water traffic conditions almost 100 per cent. Six new liners have been placed in service and the two railroads serving the East Coast have improved their schedules until 12 hours have been cut from the New York-Miami run. Motor traffic has been benefited by the resurfacing of the picturesque Highway of Palms, a 366-mile road extending from Jacksonville to Miami. The entire distance is without a single detour, and the road is easily among the best five in the United States.

Louisiana Manufacturers Foster State Products.

Efforts are being made on the part of the Louisiana Manufacturers Association, New Orleans, to stimulate the increased consumption of products manufactured within the State. An index file containing all State products with information concerning them is now available. The association believes that "possibly the greatest benefit to come from this effort will be the substantial increase of the number and prosperity of employes in industry, and with their added buying power, will in turn react favorably upon the retailers whose increased trade will automatically increase their buying power."

Officers and directors of the association include the following:

President, George Long, Consumers' Biscuit Company, New Orleans; vice-presidents, A. B. Freeman, Louisiana Coca-Cola Bottling Company, New Orleans, and E. H. Bostick, the Gullett Gin Company, Amite; secretary and treasurer, Peter Jung, Jr., Crescent Bed Company, Ltd., New Orleans. Directors include president, vice-presidents, secretary-treasurer, members ex-officio and the following: Chas. H. Behre, Pelican Ice Company, Ltd., New Orleans; W. P. Connell, Louisiana National Bank, Baton Rouge; D. T. Cushing, Great Southern Lumber Company, Bogalusa; Jules Godchaux, Godchaux Sugars, Inc., Raceland; B. C. Brown, New Orleans Ice Cream Company, New Orleans; Bradford Hearn, Shreveport Producing and Refining Company, Shreveport; W. H. McLellan, the Alden Mills, New Orleans; T. G. Sinclair, Meridian Fertilizer factory, Shreveport; B. C. Casanas, Merchants Coffee Company, New Orleans; W. W. Campbell, Campbell's Ice Cream Company, Shreveport; Chas. de B. Claiborne, Whitney-Central National Bank, New Orleans; S. Odenheimer, Lane Cotton Mills Co., New Orleans; Robert W. Ferguson, Luken Steel Company, New Orleans; C. D. Kemper, Sterling Sugars, Inc., Franklin.

Record National Bank Resources.

THE SOUTH HAS NEARLY 20 PER CENT OF THE RESOURCES AND DEPOSITS OF ALL NATIONAL BANKS.

In his annual report, issued December 12, J. W. McIntosh, Comptroller of the Currency, says that as only nine months have elapsed since the passage of the so-called McFadden National Bank Act, too short a time has passed to allow banking fully to adjust itself to the new conditions. For that reason he feels it is not necessary to make any recommendation to the Congress for the enactment of new legislation at this time.

The report of the Comptroller of the Currency in 1924 showed that national banks were declining in relative strength, having during the preceding six years lost more than \$2,230,000,000 to State banking systems, with the result that the aggregate bank resources of the national banks had dropped from 75 per cent of the total of commercial banking resources of the country in 1884 to about 46 per cent in 1926. The Comptroller of the Currency claims that the McFadden Act has brought new life to the national banking system, having enabled them to perform every phase of banking carried on by State banks and trust companies and, he adds: "Though it has been in operation less than nine months, the additions to the resources of the national banks far more than offset the losses to State controlled institutions, aggregating about \$1,000,000,000 during the three-year period prior to its enactment.

"The Act brought to an end the establishment of State-wide branches within the Federal Reserve system. Since last February 400 new branches were added to the national banking system through consolidations and conversions of State banks, but since these 400 branches were under the control of State banking laws their addition to the national banking system did not add to the total of branch banks in the United States. However, the Act did add to the number of branch banks in the United States the number of new city branches already established, viz.: 127, one of which was subsequently abandoned." The number of domestic branches of all national banks as of October 31, was 898. California, with 448 branch banks, leads all of the States by a wide margin. In this connection it is worthy of note that the Bank of Italy National Trust and Savings Association, with headquarters in San Francisco, has 288 branches.

National bank failures for the year ending October 31 numbered 135, with an aggregate capital of \$8,257,000. "The low number of failures in the last period of four months, together with reports of better conditions, indicate a tendency toward more normal conditions," states Comptroller McIntosh, and he offers the suggestion that *"the failures of many banks could have been and can be averted if the directors would give closer attention to the affairs of the bank and not leave everything to the officials who may have been selected to run the bank."*

Bank failures other than national reported for the fiscal year ending June 30 numbered 689, with total liabilities of \$206,655,000, as compared with 496 failures and liabilities aggregating \$147,823,000 for the previous fiscal year. In this connection it must be noted that the country has 7804 national banks, but more than 19,000 State banks, loan and trust companies, savings and private banks.

The total stock of coin and other money in the United States on June 30, 1927, aggregated \$8,532,000,000, in comparison with a total of \$8,373,000,000 on June 30, 1926. Of the total stock in the current year \$347,200,000, or 4.07 per cent, was coin and other money in the Treasury as assets;

\$985,100,000, or 11.55 per cent, was held by reporting banks, and \$3,439,600,000, or 40.31 per cent, was held by Federal Reserve banks and agents. The remainder, \$3,760,100,000, or 44.07 per cent, was in general circulation. The per capita money in general circulation was \$32.13, compared with \$33.38 a year ago.

The monetary stock of the principal countries of the world for the calendar year 1926 show a total of gold of \$9,621,645,000, and silver stock amounted to \$4,230,662,000. Of this total world's monetary stocks of gold and silver the United States for the calendar year 1926 had \$4,502,429,000, or about 47 per cent, of the gold stock and \$838,260,000, or nearly 20 per cent, of the world's silver stock of money. British India alone reported over \$1,682,000,000 of silver money stock, or about twice as much as that in the United States.

The resources of 7804 national banks reporting to the Comptroller of the Currency on October 10, 1927, aggregated \$27,213,824,000, the largest amount ever reported in the history of the national banking system, exceeding by \$1,529,975,000 the resources reported by 7912 national banks on December 31, 1926, and \$1,898,200,000 more than the 7978 national banks reported on June 30, 1926.

National bank capital stock paid in of \$1,499,384,000 exceeded the amount reported in December by \$86,661,000, and surplus and undivided profits aggregating \$1,844,511,000 was an increase of \$150,315,000 over the December figures.

Liabilities for circulating notes outstanding were \$649,886,000, and exceeded by \$3,437,000 the liability for notes outstanding at the end of 1926.

Deposit liabilities were \$22,287,238,000, or an increase of \$1,423,247,000 since December.

Liabilities for money borrowed on account of bills payable of \$235,759,000 and rediscounts of \$80,571,000 aggregated \$316,330,000, or \$213,979,000 less than on December 31, 1926.

Total resources of the 2305 national banks in the Southern States on October 10, 1927, were \$5,394,088,000, as compared with \$4,984,846,000 on June 30, 1926; total deposits in Southern banks amounted to \$4,400,546,000, as compared with \$3,384,075,000; and the paid-in capital stock of Southern banks was \$365,767,000, as compared with \$353,333,000. On October 10 the South had nearly 20 per cent of the resources and deposits of all the national banks in the United States.

The report of the Comptroller of the Currency covers not only the national bank system of the United States, but it also embraces the reports in the main of all other banking institutions, for the combined figures do not represent the aggregate of all the banks in the country since they do not all report to the Comptroller of the Currency.

On June 30, 1927, there were 27,061 reporting banking associations in the United States, Alaska and insular possessions, with combined resources aggregating \$68,132,558,000, which exceeded by \$3,239,196,000 the total resources of 28,146 banks which reported to the Comptroller of the Currency on June 30, 1926.

Loans and discounts, including rediscounts, totaled \$37,270,378,000, as compared with \$36,233,490,000 the year previous, an increase of \$1,036,888,000.

The paid-in capital stock of \$3,376,498,000 showed an increase of \$103,195,000, and surplus \$3,764,527,000, and undivided profits of \$1,131,206,000, exceeded last year's figures by \$292,559,000 and \$68,035,000, respectively.

The deposit liability of all reporting banks was \$56,735,-

\$58,000, or \$2,679,481,000 more than in the previous year. Included in this deposit liability are individual deposits amounting to \$51,132,554,000.

According to the banks reporting to the Comptroller of the Currency, all banks in the South, numbering 8804 on June 30, 1927, had resources of \$10,123,807,000, as compared with \$10,200,422,000 reported by 9250 banks on June 30, 1926. The

NUMBER, AGGREGATE RESOURCES, PAID-IN CAPITAL AND INDIVIDUAL DEPOSITS OF ALL BANKS, BY STATES AND GEOGRAPHIC DIVISIONS, REPORTING TO THE COMPTROLLER OF THE CURRENCY, JUNE, 1927.

(Includes national, State (commercial) banks, loan and trust companies, savings and private banks.)

State and geographic divisions	Number of banks	Aggregate resources	Paid-in capital	*Individual deposits
Alabama	356	\$349,241,000	\$28,098,000	\$256,599,000
Arkansas	453	268,903,000	22,617,000	197,584,000
District of Columbia	43	315,184,000	24,451,000	237,324,000
Florida	327	562,565,000	36,887,000	417,609,000
Georgia	471	462,843,000	40,795,000	314,406,000
Kentucky	599	591,418,000	43,832,000	424,406,000
Louisiana	232	529,314,000	35,386,000	369,623,000
Maryland	244	941,067,000	45,925,000	726,664,000
Mississippi	343	276,538,000	17,006,000	216,735,000
Missouri	1,439	1,601,480,000	121,681,000	1,147,696,000
North Carolina	540	503,958,000	38,240,000	356,767,000
Oklahoma	696	521,251,000	34,479,000	407,996,000
South Carolina	281	234,841,000	20,015,000	174,798,000
Tennessee	520	526,826,000	41,215,000	385,078,000
Texas	1,426	1,314,162,000	117,606,000	902,229,000
Virginia	497	671,672,000	59,048,000	451,823,000
West Virginia	339	452,494,000	35,012,000	342,850,000
Total	8,804	\$10,123,807,000	\$758,294,000	\$7,329,587,000
Maine	144	\$466,694,000	\$13,201,000	\$381,030,000
New Hampshire	123	304,088,000	6,530,000	253,295,000
Vermont	103	261,716,000	7,976,000	221,758,000
Massachusetts	442	4,911,842,000	125,528,000	4,073,262,000
Rhode Island	37	571,441,000	14,265,000	493,165,000
Connecticut	250	1,320,034,000	42,662,000	1,100,935,000
New England	1,101	\$7,835,815,000	\$210,162,000	\$6,523,385,000
New York	1,151	\$18,894,762,000	\$629,386,000	\$13,374,564,000
New Jersey	568	2,619,291,000	125,903,000	2,127,163,000
Pennsylvania	1,640	6,512,856,000	349,104,000	4,706,824,000
Delaware	59	151,230,000	10,507,000	115,441,000
Middle Atlantic	3,418	\$28,178,139,000	\$1,114,900,000	\$20,323,992,000
Ohio	1,067	\$3,238,029,000	\$178,970,000	\$2,537,421,000
Indiana	1,063	1,200,393,000	80,216,000	823,327,000
Illinois	1,843	4,617,864,000	273,232,000	3,422,618,000
Michigan	796	2,267,854,000	119,992,000	1,784,456,000
Wisconsin	973	1,100,626,000	64,178,000	881,151,000
East North Central	5,744	\$12,424,766,000	\$716,588,000	\$9,448,973,000
Minnesota	1,196	\$1,129,048,000	\$62,586,000	\$890,043,000
Iowa	1,438	1,024,005,000	71,102,000	814,568,000
North Dakota	530	165,726,000	12,893,000	134,989,000
South Dakota	417	158,640,000	12,047,000	128,615,000
Nebraska	1,025	541,422,000	36,918,000	411,846,000
Kansas	1,180	541,455,000	43,443,000	406,741,000
West North Cent'l	5,786	\$3,560,296,000	\$238,989,000	\$2,786,802,000
Montana	210	\$170,389,000	\$11,735,000	\$139,432,000
Idaho	144	97,503,000	6,562,000	78,413,000
Wyoming	88	68,419,000	4,225,000	54,899,000
Colorado	297	337,856,000	18,157,000	270,946,000
New Mexico	59	41,297,000	3,218,000	35,415,000
Arizona	46	82,804,000	5,117,000	69,005,000
Utah	107	175,893,000	11,598,000	119,877,000
Nevada	35	46,529,000	3,262,000	37,052,000
Mountain	986	\$1,020,690,000	\$63,874,000	\$803,037,000
Washington	358	\$529,146,000	\$31,555,000	\$414,675,000
Oregon	253	326,755,000	20,702,000	263,087,000
California	544	3,833,958,000	192,209,000	3,043,928,000
Pacific	1,155	\$4,680,859,000	\$244,466,000	\$3,721,690,000
Total U. S.†	27,061	\$68,132,558,000	\$3,376,498,000	\$51,132,554,000

*Includes dividends unpaid and postal savings.

†Includes 67 banks in Alaska and insular possessions with resources of \$368,186,000; capital, \$29,225,000, and deposits, \$195,088,000.

BANKS, BY CLASSES, JUNE, 1927.

	Number of banks	Aggregate resources	Paid-in capital	Individual deposits
National banks	7,796	\$26,581,943,000	\$1,474,173,000	\$18,239,353,000
State (commercial) banks	15,690	16,564,988,000	1,078,087,000	12,936,590,000
Mutual savings banks	618	9,011,185,000	8,077,099,000
Stock savings banks	843	1,815,538,000	69,144,000	1,661,803,000
Trust companies	1,647	13,994,756,000	745,647,000	10,094,485,000
Private banks	467	164,148,000	9,447,000	123,224,000
Grand total	27,061	\$68,132,558,000	\$3,376,498,000	\$51,132,554,000

total individual deposits of all reporting Southern banks on June 30, 1927, were \$7,329,587,000, as compared with \$7,344,008,000 on the same date of 1926, and the paid-in capital stock was \$758,294,000, as compared with \$762,379,000.

With the exception of the Middle Atlantic and East North Central States the South in June, 1927, had greater bank resources and individual deposits; and the paid-in capital stock of Southern banks was second only to those in the Middle Atlantic States. One often thinks of New England as a great money center of the country, but the South has greater bank resources, more paid-in capital stock and more money on deposit than New England.

The total cash holdings of all banks June 30, 1927, including the 12 Federal Reserve banks, amounted to \$4,247,814,000, which was an increase of \$223,133,000 in the year. Of this total \$364,204,000, or 8.57 per cent, was held by 7796 national banks; \$643,692,000, or 15.15 per cent, by 19,265 banks other than national, and the remainder, \$3,239,918,000, by the 12 Federal Reserve banks.

Of the \$51,132,554,000 of aggregate individual deposits in all the reporting banks of the country on June 30, 1927, more than \$26,032,000,000 were savings deposits. The per capita individual deposits based on an approximate population of 129,804,000 were \$393.92, and the per capita savings deposits were \$200.55. The increase in the per capita savings deposits is due in part to the inclusion of time certificates of deposits with other savings, which have not heretofore been so included in the Comptroller's reports. In addition, postal savings in the United States amounted to \$107,141,000.

The total savings deposits on June 30, 1927, in all banks of the South reporting to the Comptroller of the Currency amounted to \$2,795,565,000, or a per capita savings of \$71. In addition, the postal savings in the Southern States on June 30 were \$22,844,000.

SAVINGS DEPOSITS OF ALL BANKS IN THE SOUTH, BY STATES, REPORTING TO THE COMPTROLLER OF THE CURRENCY JUNE 30, 1927.

States	Savings deposits*	Per capita
Alabama	\$105,408,000	\$42.16
Arkansas	72,776,000	38.71
District of Columbia	90,438,000	177.33
Florida	159,889,000	126.39
Georgia	139,029,000	44.85
Kentucky	490,142,000	35.84
Louisiana	129,241,000	67.67
Maryland	435,557,000	269.69
Mississippi	97,198,000	54.21
Missouri	394,292,000	113.79
North Carolina	156,586,000	54.37
Oklahoma	72,988,000	31.30
South Carolina	91,366,000	50.06
Tennessee	171,734,000	70.10
Texas	183,624,000	35.18
Virginia	243,655,000	97.66
West Virginia	161,642,000	99.78
Total	\$2,795,565,000	\$71.00
United States†	\$26,032,001,000	\$200.55

*Includes time certificates of deposit, but not postal savings deposits, which amounted to \$107,140,780 for the country and \$22,844,053 for the South.

†Estimated.

‡Includes \$69,739,000 of savings in Alaska and insular possessions.

Statistics of building and loan associations in the United States, as given in the Comptroller's report for 1927, are for the fiscal year 1926. At that time there were 12,626 building and loan associations, with 10,665,705 members and total assets of \$6,334,104,000. The South had 2725 building and loan associations, with a membership of 1,559,721 and total assets of \$1,082,607,000.

In addition to the savings deposits of the banks of the country, postal savings, building and loan association savings included in the report of the Comptroller of the Currency, there are also vast sums in associational and fraternal organizations and vast security holdings not covered in the report, which illustrate the magnitude of savings by the people of the United States.

UNITED STATES LEADS WORLD IN WATER-POWER UTILIZATION.

South Alone Has Greater Installed Capacity Than Any Other Country, Except Canada.

Probably the best gauge by which to measure modern civilization is the extent of the development of mechanical energy. In this respect the United States leads the world, as estimates made by the Interior Department show that this country is making the greatest progress in water-power development, and in the capacity of its installed plants it now nearly equals all of Europe. The total at the beginning of 1927 was 11,700,000 horsepower, as compared with 13,100,000 horsepower for Europe. Between 1921 and 1927 the capacity of water-power plants in the United States of 100 horsepower or more increased 3,800,000 horsepower, while in Europe the increase in plants of all sizes was 4,200,000 horsepower, with this country reporting a higher rate of increase during the last three years of that period, as compared with a lower rate for Europe. At the beginning of 1927 the developed water-power of the world was as follows: North America, 16,800,000 horsepower, of which the United States had 11,700,000; South America, 750,000; Europe, 13,100,000; Asia, 2,100,000; Africa, 14,000; Oceania, 240,000, or a world total of 33,000,000 horsepower. Installed water-power plants of the world since 1920 have increased 43 per cent.

Of individual countries Canada ranked next to the United States, with an installed capacity of 4,556,000, less than half of the United States total.

As the aggregate water-power developed in the Southern States at the beginning of 1927 was in excess of 2,760,000 horsepower, the South alone has a greater installed capacity than the leading water-power producing countries of the world, such as Italy with its 2,300,000 horsepower; France, 2,000,000; Norway, 1,900,000; Switzerland, 1,850,000; Sweden, 1,350,000; Germany, 1,100,000; Spain, 1,000,000; Japan, 1,750,000; Brazil, 500,000; Austria, 325,000; British Isles, 250,000; Mexico, 300,000; Russia, 230,000; India, 200,000, and the rest of the countries each with much smaller amounts. In fact, the South has almost as much developed water-power as the combined installations of South America, Asia, Africa and Oceania.

\$500,000 Feldspar Milling Plant Proposed.

Raleigh, N. C., December 10—[Special.]—Plans have been drawn and financing completed for the erection of a \$500,000 feldspar milling and grinding plant at Bowditch, six miles southeast of Burnsville, N. C., by a group of North Carolina and New York interests. Construction of the plant, according to Judge Carl B. Hyatt, Asheville, one of the leaders in the project, will be started within a few months and is scheduled to be in operation before July 1 of next year. According to the promoters, the plant will be one of the largest of its kind in the world, its daily capacity figured to be 150 tons.

Besides Judge Hyatt, his father, State Senator James L. Hyatt, Burnsville; J. F. Shinn of the Norwood Manufacturing Company, Norwood, and Charlotte and New York interests, will be interested in the project.

State Geologist H. J. Bryson furnished a report on the tract from which the feldspar will be taken, and it was upon his recommendation that the enterprise was continued from its embryonic stage. Mr. Bryson spent three weeks in investigating the possibilities of the 3500-acre tract, after which he made a report declaring that there are at least 50,000,000 or 100,000,000 tons on the property.

Organizers of the company, a charter for which has already

been drawn, declare that approximately 60 men will be employed in the mines and about 12 in the plant. The mill will consist of three units, being planned so that later one or more may be adapted to the milling of cyanite.

Rudolph Glatly, who will be plant superintendent and technical expert of the company, designed the mill. Transportation of the materials from mine to mill will be by gravity. The design of the plant also calls for mechanical handling of the spar through its various processes.

The development will be in the Spruce Pine district.

\$10,000 From Pine Needle Baskets—How Farm Women Established a New Industry by Utilization of a Waste Product.

Auburn, Ala., Dec. 17.—Clay county, Ala., noted during the war for its graphite mines, is now attracting attention because of its pine straw baskets, made by the farm women and girls of the county. They began the manufacture of fancy baskets in 1926, using the "needles" of the pine tree. Just before Christmas of that year they had a large number on hand and requested Mrs. J. E. S. Rudd, home demonstration agent, to assist in finding a market. She shipped several hundred baskets to Birmingham where she rented a sample room in the leading hotel, sold them out and returned with the money in time to distribute it before Christmas.

This experience greatly pleased the county people and at the same time showed that they would have to standardize and make better baskets to establish the industry. This they have done; and they have been able to sell their baskets to leading florists, department stores, and other dealers in the cities of the North and East.

During the year one or two sales ladies have been on the road all the time selling pine needle baskets made in Clay county. Sales the first ten months netted the producers more than \$10,000 and Mrs. Rudd thinks this can be doubled during 1928. To further the industry, an association, backed by the business men of Ashland, Ala., has been organized and they are working to make Clay county famous for its pine needle baskets.

New \$6,000,000 Hotel for Washington.

Following an announcement that the site of the Shoreham Hotel at Fifteenth and H streets northwest, Washington, D. C., had been acquired by the Robert A. Nordblom Company, a real estate firm of Boston, Mass., it was reported that this company would build a \$6,000,000 hotel on the site to be called the New Shoreham. R. A. Nordblom wires that he is not ready to announce the architect for the new structure, but that construction will probably begin within sixty days, a lease for the hotel having been signed with a prominent hotel manager who has been successful in other cities.

Reports from Washington state that the building will be 12 stories of semi-classical architecture, with an interior typically Colonial, to contain 500 rooms. Four elevators will be installed and the dining room will be a feature of the building, which will cover the entire site of 136 feet on H street and 125 feet on Fifteenth street.

Two San Angelo Buildings to Cost \$1,200,000.

San Angelo, Texas.—A 12-story bank and office building and a 12-story hotel will be erected here at a total cost of \$1,200,000, according to plans of the Concho Realty Company, which has been incorporated by H. L. Griswold and associates. The tenth and eleventh floors of the office structure are intended for professional tenants, while the twelfth floor will contain a clinic. Anton F. Korn of Dallas is the architect and B. M. Morgan of San Angelo, associate architect.

Land Selection Important to Agriculture.

By ALBERT O. KAY, Resident Engineer, Everglades Drainage District, West Palm Beach, Fla.

Persons who are interested in a substantial agricultural development and really desire new settlers to succeed should stress the importance of having a soil examination made of each tract before final arrangements are consummated with the settler. The cost of this examination will be low when compared with the selling price of the land, but when the examination is made by one competent to render such service it will have immeasurable value.

If the necessity of land selection and appraisal is not recognized by the large developer or promoter, it is incumbent on the purchaser of small tracts to be careful when selecting, and to secure disinterested advice. The smaller the tract, the more cautious and exacting he should be, since then there is more need to have all the land producing. If a small area exists in a tract where the soil is unsatisfactory, time should be allowed to build it up. This, to him, may seem unimportant, but it must be remembered that a soil well selected and nurtured is one of the basic factors of success in agriculture.

In any community, it is incumbent on those who are well fitted to advise to render the newcomer all the assistance possible. The various soils should be given their true value, not in terms of dollars per acre—for, who knows what a piece of land is worth to either of two individuals?—but in ultimate crop yields after a period of good husbandry. Insistence should be laid on developing that land which is ready and let the balance remain idle until it has had a chance to improve, coincidently with the development activities attending the utilization of the better land.

Who can begin to estimate the losses resulting annually to agriculture all over the United States from an improper selection of land? On traveling through Florida, particularly, and beholding any ragged truck farms and groves, it appears as though something must be wrong with the methods of selecting land for agricultural and horticultural uses, and it is evident that there is considerable opportunity for research work in order to overcome some of the problems. It is not uncommon to see citrus groves, irregular in development, containing trees of various sizes and having a more or less stunted appearance. When sickly citrus groves are observed, the question arises: Were the trees all set out at one time; or, are some of a later planting? and, if of a later planting, why? On questioning the owner, the reply is likely to be: "I had to re-set a number of trees because the original trees were set out in poor soil and did not thrive," such as land too wet or too dry, or having unfavorable top soil or subsoil formation. In the trucking areas, the same agencies—primarily, poor soil and extremes of moisture—contribute to the failure of the crop.

Practically, all Florida soils are usable, ranging from the growing of pineapples on the poorest sandy soil, through citrus and truck on the best soils, and grazing and dairying on the intermediate soils. But, we certainly cannot pursue all these operations on the same type of soil; for, the plant characteristics must be recognized. Soil conditions unsuitable for truck are more easily discerned than those unsuitable for citrus culture. The variation in productivity is more readily recognized. When found unsatisfactory for truck, the soil is usually abandoned after the first trial crop. Citrus growing conditions are different; since it requires at least four years for a tree to come into bearing, and as young trees do not make excessive demands on the soil during the developing period, the disadvantages of location may not be so evident

until after the trees reach the bearing age and the roots begin really to secure food and moisture for both vegetative growth and fruit formation.

In some sections of Florida, the developers have recognized any unsuitability of soil and have been governed accordingly. They have seen that in one place the limiting factor is an underlying rock formation, which limits root penetration and extension; in another area, the undulating clay subsoil affects the moisture condition, generally causing excess, while in the deep, sandy, rolling land they have noted that a deficiency of moisture was the rule. And, in the lower flatwoods and prairies they recognized the effects of hardpan and clay subsoil, and the value of soils in the sand pond areas. Naturally, and fortunately, these apparent drawbacks are not in solid blocks and unchangeable. In many cases, they are subject to alteration into usable quantities. Large areas in the prairies and flatwoods throughout the State are now in drainage enterprises and the results show them to be economical projects. These operations have made available thousands of acres of good land which formerly were unsuited to agriculture because of the annual threat of overflow.

When one reviews the irregular appearance and condition of the soil, with the knowledge that large acreages are being developed in one block, without any pretense of eliminating or altering poor areas, it is only reasonable to suppose that areas of various sizes will appear in those blocks which will be suitable for only one type of planting, and perhaps not to the type selected.

Space will not permit a description of the many soil types in Florida which have been identified and described during the course of the soil surveys which have been made by the United States bureau of soils in conjunction with the State geological survey. It is enough to state that there are some which present serious obstacles to a profitable development, without an excessive cost of preparation and alteration. The surface soil may be good and the subsoil poor; or, the surface soil may be poor the the subsoil good. Again, some of the soils may have a favorable topsoil and an unalterable subsoil structure, upon which perennials will thrive for a time and then decline. Planting on this latter formation will depend upon the willingness of the developer to make the most of the situation, and be reconciled to a comparatively short lived crop. Yet, even under these conditions, certain methods may be followed to increase the yield over and above the present production.

For trucking, a good topsoil is essential; whereas, for citrus a poor topsoil having a good subsoil is permissible, since there is present a foundation on which to build a topsoil that can be built up by the intelligent use of a system of cover cropping while the tree is in the making. Many instances are of record where attempts have been made to develop these undesirable soils, even though better land was available. In some instances, developers have acted contrary to the advice given them; on the other hand, however, many small developers have purchased land in good faith only to find that they have been imposed on in some manner or other—an illustration of the importance of an appraisal of the land before farming operations are begun.

It is enough to ask a newcomer to establish himself in a new community, without burdening him with a block of land which is unsuitable for the use to which he desires to put it. Instead of just trying to sell a tract of land, let us always keep before us "sound development." Let us be more selective and discriminating, and permit the poorer land to age while we improve that which is now ready for the plow. Let

us try to remove some of the blots on the landscape, and prevent more from appearing.

For the prospect let us prepare a questionnaire as follows:

Is the soil suitable for the crop I want to grow? or, Can I adapt myself to a new crop?

Is it well located from the moisture standpoint, drainage and irrigation?

Is the tract well situated in regard to shipping farm products?

Questions such as these must be answered by the prospect, aided by one familiar with conditions in the section selected. Unless they are answered satisfactorily, and the suggested procedure followed, failure may be assured, and the community will suffer loss as well as the individual. No group of citizens wants failures at its door—it is poor advertising and shows that all is not well in that community. It is evidence that someone has given unsound advice in selling, in selecting land, or in adapting crops to the land, and that the individual was not thorough in the early stages of the farm development. Without doubt, many of the present poor developments were improperly selected, and these should serve as examples, to indicate what can be expected unless good judgment is exercised in selecting land for agricultural purposes.

Contracts on Power Plant Extension at San Angelo.

Regarding the construction of an extension to its power plant at San Angelo, Tex., the West Texas Utilities Company, Abilene, advises that the work will be handled by its own construction department. The following contracts have been awarded:

Boiler of 556 horsepower and economizer—Babcock and Wilcox Company, Bayonne, N. J.

Condensing equipment—Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa.

Draft fans—Buffalo Forge Company, Buffalo, N. Y.

Feed pumps—A. S. Cameron Steam Pump Works, New York City.

Furnace arches—H. M. Dietrich Company, Chicago.

Heater—Elliott Company, New York City.

Turbo-generator of 5,000-kilowatt capacity and six transformers of 2500 kva—Allis Chalmers Manufacturing Company, Milwaukee, Wis.

Sargent & Lundy of Chicago are engineers for the extension, which is estimated to cost \$500,000.

To Promote Law Observance.

Announcement is made that the annual meeting of the Citizens Committee of One Thousand, a national movement for law observance, will be held on January 6, at the Waldorf-Astoria Hotel, New York. In view of the fact that Col. Patrick H. Callahan and several other prominent members will be absent on a great field campaign at that time, an elaborate function which was to have marked this meeting has been temporarily postponed. The campaign in which Colonel Callahan, Chairman Fred B. Smith and Executive Secretary Carlton M. Sherwood are engaged will be carried into the South and the Southwest.

\$1,000,000 Apartment Hotel for St. Louis.

St. Louis, Mo.—According to an announcement by Benjamin Ansehl, president of Benjamin Leland & Co., of this city, he will erect a \$1,000,000 apartment hotel at the northwest corner of Lindell boulevard and Sarah street. The structure will be of the set-back design. Jesse L. Bowling of St. Louis is the architect.

Sealed bids for the purchase of \$125,000 of 6 per cent negotiable coupon improvement bonds will be received until December 27 by the city of Fort Lauderdale, Fla., Glen E. Turner, city auditor-clerk.

[From Printers' Ink.]

Why Advertising Should Proceed Without Interruption.

Thirty-Nine Terse Reasons, Picked from the Pages of Printers' Ink.

[Editorial Note: A Printers' Ink reader recently consulted the files in our research department to post himself on the cumulative effect of advertising, the possibility of disaster if advertising is discontinued, and kindred topics. He read intensively and well. When he departed he left with us these "epigrams" (as he called them, though that is not the right word exactly), which he had culled from articles that have appeared in Printers' Ink. Even when taken out of their context these statements of fact seem to carry weight and bear witness for continuing advertising uninterruptedly. It does not seem out of place, therefore, to reprint them below.]

1. One of the greatest wastes in business today is the inability of many advertisers to stick to adopted programs.
2. A manufacturer will deliberately drop a proved style of advertising, stop a successful advertising and sales campaign at its height, and set out on a new track; but if you would suggest to him that he change the taste of a food product that had been a proved success, he would think you lacked business intelligence.
3. Mr. Manufacturer forgets that he reads every word of every advertisement that is written about *his* product; that it takes years for the public to absorb a style and the details of an advertising message.
4. Advertising speeches to the contrary, an enormous percentage of advertising is written to please the boss rather than sell the public.
5. A rolling-stone advertiser is one who is always about to get some benefit out of his advertising, but who never does.
6. By a process of starting and stopping advertising, the willing public never gets a chance to remember the product.
7. Most small advertisers are rolling-stone advertisers. That is why they are small.
8. Suppose that a sound business man should discharge his entire sales force for a few months. Suppose he should shut up his business for six months. Could he recover the lost ground without severe penalty? Of course, a good business man would not indulge in such folly. But that same good business man will stop his advertising whenever he can find an excuse and think that it does him no harm.
9. Since so few competitors will stick to a policy of steady plugging on selling, or to a policy of steady continuity in advertising, think what an advantage the advertiser has who will stick to steady repetition and reiteration.
10. Expediency is one of the major weaknesses in business. It is nearly always wrong.
11. To follow expediency is like taking dope—it feels fine for a few minutes, but there is always a day of reckoning.
12. Rolling-stone advertisers cannot advertise when business is bad, because they have no money. They do not need to advertise when business is good, because they have too much business. With the rolling-stone advertiser, there is no time to advertise.
13. The average advertiser will probably never learn that national advertising has no immediate effect on sales except in certain practical cases.
14. The average consumer doesn't read an advertisement, grab his hat, run down to the store and demand the product.
15. National advertising is building—building into consumer consciousness the name of the merchandise and the reason why it should be bought. This is not done by spurt advertising. It is done by steady repetition and reiteration over a long period, without any breaks in the schedule.

16. Few new advertisers know anything about advertising, but are cocksure they are pretty good at it.

17. Nothing done spasmodically ever amounts to much.

18. Suppose the Twentieth Century Limited started for Chicago, then stopped and waited for a passenger whenever it was expedient. When would it get to Chicago on such an expedient schedule? This is exactly the kind of schedules that rolling-stone advertisers use.

19. When an advertiser stops advertising he discourages his sales force even though he stops only for a few months. He also discourages his sales manager.

20. If the heads of the business operate a weak policy of stopping and starting their advertising on an expediency basis, the whole sales organization will be stopping and starting and vacillating—an expediency sales force.

21. Salesmen like a leader (at the head of the business) who knows what he wants to do, who does it, and sticks to it like the unimaginative General Grant who, when expediency was losing the Civil War, uttered his great classic: "We will fight it out on this line if it takes all summer."

22. Pyle's Pearlina, Soapine, Sozodont, St. Jacob's Oil, Hood's Sarsaparilla, Ayer's Sarsaparilla, etc., etc., all stopped advertising and then tried to get back.

23. An investment in advertising over a period of years is an invaluable asset. It is worth what was paid for it if the advertiser keeps on advertising and thus protects it and increases its value and keeps it alive.

24. Advertising increases the selling power of every salesman by reducing the sales resistance.

25. "Advertising doesn't jerk. It pulls, but if stuck to, it will exert an irresistible force. Advertising is no game for the quitter."—John Wanamaker.

26. A policy of making advertisers contract for a schedule forces many advertisers to succeed in spite of themselves.

27. Bigger advertising appropriations do not necessarily mean higher selling expenses nor added cost to the consumer; they make for greater production and thus effect economies that can be passed on to the public.

28. We all remember what happened in 1920 when it got to be quite the fashion for advertisers to cancel their plans and orders for space. The thread of continuity was broken on many a good campaign, and there are numerous business firms that have not yet recovered from their misapplied ideas as to economy. Their lack of merchandising vision and their tendency to run for cover instead of fighting all the harder when danger threatened piled up difficulties which have not yet been overcome.

29. Everyone takes pride in the advertised article he buys. In the case of an automobile, the more advertising the owners see, the more satisfied they are with their purchase, the more pride they take in its possession, and the more they urge their friends to join in the same class.

30. A pleased customer who is taking the position of a salesman without compensation simply because of his pride in his purchase is one of the most valuable salesmen a company could have.

31. Every large advertiser has on his prospect list, either potentially or actually, many prospects who are almost sold. The last dollar spent in advertising will bring more returns than the first, because it gathers in the results of this cumulative effect. (The last round of the prizefight is the most telling round.)

32. The advertiser who cancels too soon loses the most valuable part of his investment.

33. A publisher often gives the best position to his regular customers. Advertisers who are in the habit of canceling soon lose this co-operation.

34. Competition cannot be beaten by giving in to it. The well-advertised line with a firmly established trade-mark is

not subject to the whims of competition in the same degree as a line that is bought only because its price is low.

35. It is a surprising fact that there are few seasoned advertisers who have ever allowed themselves to become backsliders.

36. It is only the advertising dilettanti who now occupy the industrial graveyard.

37. Rather than blame advertising for inviting competition, isn't it fair to blame the success of the product?

38. Who ran for President against Roosevelt? Have you forgotten that name? Then perhaps you remember who was Wilson's opponent in 1912? Ah! The public forgets trade names even more easily.

39. Momentum is nothing more than a gradual approach to a dead stop. The firm that attempts to run on advertising momentum is doomed to disappointment.

American Materials for American Work.

Endorsement of a measure before Congress requiring the United States Government to give preference to American goods in purchases for construction work was voted by the National Builders Supply Association recently, in annual meeting at Cleveland. The association will exert every proper effort in support of the measure.

As basis for its action the association cited "the destructive invasion of American markets by competitive foreign commodities," which "aggregated \$1,152,000,000 in 1926" and continued through 1927, "depleting the buying power of the American people by cutting down the production of American construction industries, unsettling prices and retarding construction activities in many sections." This invasion, adds the preamble, "is made possible by the fact that foreign governments keep living standards at a low level to insure cheap labor and actively encourage cartels or trusts to control prices for the benefit of the export trade, whereas the American Government fosters high standards of living and expensive labor and prohibits trusts and price control on the part of the American producer."

This invasion, the association asserts, has been encouraged and aided from time to time by the American Government "by the purchase of foreign made goods for public works, in preference to American made commodities of equal or superior quality." To this practice it objects.

Excavation for \$2,000,000 Wing of Government Building.

Washington, D. C.—On a bid of \$77,500 the English Construction Company, Inc., of this city, has submitted the lowest estimate for the first excavation and construction work on the proposed \$2,000,000 central wing for the Department of Agriculture building. The work will include excavation of the site between the two end wings now in use and relocation of heating tunnels for the central wing. Rankin & Kellogg of Philadelphia are the architects and Edward H. Bennett, Chicago, consulting architect.

Churches Using Ventilating Systems.

The Church is turning to scientific control of air conditions within its buildings because its leaders have found that there is a direct relation between good ventilation and the attitude on church attendance, according to a recent survey by the Modern Science Institute, Inc., Toledo, Ohio. Recently completed Southern churches which have enstalled such equipment include: Baptist Temple, Charleston, W. Va.; Temple Beth-El, San Antonio, Texas; Independence Presbyterian Church, Birmingham, Ala., and Sacred Heart Church, Tulsa, Okla.

Letters From Our Readers.

Too Much Money Going to Europe From America.

The Walters Company.

Waterproofing Engineers

Passaic, N. J., December 3.

Editor Manufacturers Record:

I have read with great interest your views on sending money to Europe by American bankers. I agree with you fully that there are so many worthy enterprises in our own country that deserve attention first. Suppose another war comes along and all those foreign investments are completely wiped out. There is no question that Europe is not in a peaceful mind, and that war will come sooner or later. If this money is invested in American enterprises it is far safer for everybody concerned and will benefit our country. I hope you succeed in your endeavors which are worthy of the highest praise.

I have read recently in the papers that American bankers propose to make a loan to Japan to finance a railroad in Chinese territory. It is certainly beyond my comprehension, how intelligent bankers can justify loaning to Japan, as this money is used absolutely to subjugate China and not with the idea of helping China. I suggest that you bring this into prominence and the influence that you have should be brought to bear in Washington. I wish you success in your courageous undertaking.

AUGUST WALTERS.

Rightly Stresses Importance of Reduced Cotton Acreage.

The A. P. Brantley Company.

Blackshear, Ga., December 5.

Editor Manufacturers Record:

I am taking the liberty of quoting from a circular of the house of Craig of New York, under date of December 2:

"Importations of basic raw fertilizers continue to increase and all available indications now point to an increased use of fertilizer for the cotton crop that is to be planted next spring. Let us hope that the policy will be for intensive cultivation without an enormous increase in acreage. The world is in no position to take care of another bumper crop: the past two have brought about a situation rarely witnessed in recent years and, in our opinion, another bumper crop, even following this most moderate one, would result in declines in the cotton market that would make the whole cotton trade a sad one."

These people, though Southerners, have been consistent bears throughout the present season, but their views upon the price of cotton in the event of a large acreage furnish ammunition for the type of editorials I have been in hopes you would decide to write.

I note that you say, "Some of this heavy acreage is due to the fact that large land owners cultivate their land through tenants. Unless the land is put in cotton they get no income from the land. Planted in cotton, they get some income, even though the grower of the cotton may lose money on his crop."

While this is true, I think if you will figure this out, you will find that even the land owner under reduced acreage will get more net dollars than under the program of a large acreage.

I was talking in the last few months with a very large cotton grower in the Black Lands of Alabama and suggested my idea of reduced acreage. He seemed to think the idea was good as far as it went, but he said, "What am I to do with the land I don't plant?" What the farmer is to do with the land he doesn't plant, seems to be a stumbling block, but properly considered it is no stumbling block at all because if a smaller acreage will bring more dollars than a large acreage and at enormously less cost, why the smaller acreage is the thing. And, in addition to this, the land becomes better if left idle for a year or two.

I feel anxious not only about the acreage for 1928, but the way things are going now the growers of the crop of 1927 are not going to get what they should out of it. I am convinced,

however, that appeals to the farmer in the mass do not ever get anywhere because a relatively small percentage of them read, or they read very little. My thought is for you to direct your editorials to the intelligence of the South, that is the local men who are supposed to be intelligent in various parts of the South, in hopes that this class will in turn react upon the farmers, and I think that of this there is an excellent chance.

A. P. BRANTLEY.

A St. Louis Man's View of How to Create Prosperity.

St. Louis, Mo., December 10.

Editor Manufacturers Record:

When we stop, in the rush of daily events, and look carefully and intelligently at one of the problems which seem to be troubling the people of this country, one that is being made much of just now, by the politicians under the name of "the farm problem," a careful analysis shows us that there is no "farm problem" as such; that what is so labeled is but one more way of "dragging a herring across the trail" for the purpose of distracting attention from the real problems to which we should devote our attention. It is an old political trick and it continues to serve the purpose for which it is used.

If we will shake off the bondage of tradition, and look our difficulties straight in the face, without fear, and see them for what they really are, it will be found that there are no mysteries to fear, nothing to do which cannot be done to solve these problems, if we will.

There are a few things the people of this country can and will eventually do for the general good of all, the most important of which are:

First, take the control of the issue and volume of money out of all private hands, out of control of the banks, and restore it to its rightful place in the Government itself, and then make the basis of the value of the money issued the entire material resources and the integrity of the Nation, thereby doing away with the so-called "gold standard." The value of and the purchasing power of that money will never be questioned.

Second, institute the "single tax" and then pay off the entire national debt in the first 10 or 15 years. Wipe it out and keep it so. Stop this eternal paying of interest. Get rid of that burden; drop it.

Third, enact such legislation as will compel the railroads to base their freight rates on the cost of the transportation, not on the value of the commodities transported. Insist that the rate for freight hauled be on the basis of the per ton mile cost of hauling. The only business in this country that bases its charges on an arbitrary figure is freight transportation on the rails.

Taking the control of the issue and volume of money out of all private control will open and establish a more sound, just and equitable financial system. Instituting the "single tax" will clean out and clean up the great burden of political crookedness throughout the land and will simplify taxation. Paying off the national debt will force the money now invested in that debt, represented by Government bonds, to seek active participation in some form of productive industry.

Basing the freight rates on the per ton mile cost of hauling will bring to the transportation companies a greatly increased business, at a higher annual return, and will make the distribution of the products of both the farm and the factory so much more easy, sensible and reasonable that the other apparent troubles will disappear, and production, distribution and consumption will join hands, keep in step with each other, and the result will be found in prosperity, joy and happiness to the entire Nation.

GEO. D. HAZARD.

What Americans Must Do to Develop Home Tourist Travel.

Frederick Wehle.

Conveying and Transmission Machinery

Louisville, Ky., December 3.

Editor Manufacturers Record:

I read with much interest your remarks about foreign travel taking so much money out of the United States and am sure this is something that should be remedied. The quicker, the better.

One of my friends in New York was very recently advised by his doctor to spend this coming winter in a climate which would be better for his rather bad bronchial condition and New Mexico was suggested. The patient is an artist so there are two things he likes; one is to conserve his money, and the other is to be in surroundings which are the reverse of crude.

He has found that he can go to Morocco for the winter at less expense than he could go to Arizona or New Mexico and has made all arrangements for the ocean voyage. He is assured by a friend who has written him from Morocco that he can find a place to live that will be pleasant and at a cost below that of almost any clean place in the States.

The steamship companies seem to have provided a way to travel and eat respectably without doing either extravagantly. In the States the hotels have not learned as yet to conduct a place with a refined atmosphere, cleanliness, and wholesome food without a lot of extravagant trimmings to go with it. It would seem that we need some place where families not obsessed with the jazz standards of living can go and live on the same approximate scale that they use in their own homes. It will no doubt be a big undertaking to teach the art of simplicity with cleanliness and refinement to American inn-keepers, but it would seem that it is a task that will have to be undertaken if we want to keep the average American tourist in North America.

FRED WEHLE.

Better Goods or No Tariff.

Clarksdale, Miss., November 29.

Editor Manufacturers Record:

For some years, Congress has tried to make it appear that it was anxious to do something to help the farmer. As yet, it has not been able to agree on a plan. While most of the members know that the tariff is the principal trouble, yet it is generally avoided. Now, this tariff hits the farmers in many ways.

Some 35 years ago, I built a rabbit-proof fence around my orchard. The bottom wires were very small. This fence has given satisfaction all these years and only parts of it have just now been removed. In 1916, I commenced to build hog pastures and continued building these hog-proof fences for three years. I got the best wire I could and paid an enormous price for all of it. There isn't a foot of this fence now in existence—it has all disintegrated and disappeared.

The farmers have been taught for years that to be successful it was necessary to diversify and not put "all their eggs in one basket." Diversified farming at best is an expensive proposition, and for a farmer now to build a fence and know that all of it would have to be renewed in from three to five years makes the whole proposition entirely out of the question. The present day wire, no matter how heavily galvanized, is worthless. Only a small part of the galvanizing material will cling to the wire, no matter if it is dipped several times. The foundation is made of the very lowest grade material and will not resist rust.

Again, the first hay carrier I ever used I kept in the same barn for 17 years. The rope, with proper care, generally lasted for three years. Now, I buy two or three new carriers every year, and two or three ropes. This same trouble exists on nearly every farm in the entire country. It is a continual nuisance and a very disheartening experience. In my judgment, Congress should require manufacturers to make and sell honest material or remove the tariff.

WALTER CLARK.

Florida As a Health Paradise.

[Sam Small, Washington Correspondent, in Atlanta Constitution.]

The sum and substance of my observation during a trip to Florida, from which I have just returned, is that any one who is not stone blind and goes down into Florida cannot escape the conviction that the State is steadily recovering from the big deflation which overtook the real estate magicians and Aladdin town boomers of two years ago. Taken in all its results, that "nervous prostration" was a valuable experience and unforgettable lesson to the real estate builders and solid citizens.

Hereafter wildcatters and shoestring speculators will find no welcome or confidence among Floridians, and those who from elsewhere are seeking homes and opportunities in the State are of the careful, investigating sort. The result is already that current business and promotive enterprises are going forward with their feet on the ground and with the emergency brakes near to hand to stop any repeaters of the boom operations.

Every one who knows Florida by personal inspection knows that it is one of the most wonderfully endowed States in the Union. It has some of the most beneficent gifts of God—gifts of permanent and of repetitious values—that no art or trickery of man can take away from her.

Florida is the greatest natural sanitarium on the face of the earth. If it had no other attraction for tourists and residents than the health-giving powers of its climate, products and facilities for year around exercise and recreation, it would still be magnetic to millions of people who want and are constantly seeking just such things.

Health, after all, is the greatest human asset, after a clean heart and a right spirit. All the doctors, orthodox and quack, and all the mineral springs, resorts, and all the great sanitariums and hospitals, and all the makers of patent medicines make their millions of profit from people who are sick, or think they are. Health statisticians go so far as to claim that one-fifth of living people are always ailing some way, or believe they are, with mental or physical troubles. That would include over 20,000,000 persons in the United States only!

Scriptures ask "what will a man give for his life?" and the general answer is "all that he hath!"

By that token one can understand why Florida has a strong and continuous attraction for many thousands of persons, whether they come for a season or come to make permanent settlement.

I have been coming to Florida for many years and am well acquainted with its geography, climatology and other prime assets. The majority of the persons I meet and talk with in this State give health considerations as the explanation of why they came here to sojourn temporarily or to reside permanently.

The most profitable advertising that Florida can do for herself, the most fascinating fame she can establish over the world, is that here men, women and children can live easier, happier and longer than almost anywhere else on this hemisphere.

Folks who wish for wealth more than jobs and money will go where they will have the best assurance of bodily comfort and longer life. Business will follow such folks with invariable surety, so the more Florida advertises her great values for the getting and keeping of health, the surer will be her business expansions and prosperities.

Oklahoma Oil Sold to Canadian Company.

Tulsa, Okla.—A deal has been closed by Victor H. Smith, vice-president of the North American Car Corporation of this city, by which the British American Oil Company of Toronto, Canada, has contracted for the purchase of more than 1,000,000 barrels of Seminole crude oil for delivery in 1928, at \$1.38 per barrel. It is stated that the oil will be supplied by a group of companies without refineries and will be shipped by railroad to the purchasing company's refineries in Canada.

IRON, STEEL AND METAL MARKET

Birmingham Iron Market.

Birmingham, Ala., December 19—[Special.]—With holiday season at hand, considerable activity might not be expected.

There is, however, much going on, delivery of pig-iron is still rushing and will through the remainder of the week, to be resumed after Saturday, Sunday and Monday, much tonnage under contracts booked during the last six to seven weeks to be delivered the last week of the year. Sales are being made into first quarter of the coming year, though no heavy tonnage is reported.

The hand-to-mouth policy which has prevailed for many months so far as buying of pig-iron and other products is concerned, save for a little period following immediately the drastic cut in the price base of pig iron down to \$16 per ton, No. 2 foundry, gives signs of continuing. This is stated in face of a probable advance in quotations, the base price of iron for first quarter of coming year delivery being uncertain, some sales made at \$16 and reports current that \$16.50 and even \$17 have been asked. Some of the melters of iron will show in their inventories that they have more iron on hand than at any time in a year. However, purchases in practically all instances have been against probable needs.

Confidence in Future.

Industrial and financial leaders in this section express confidence as to the coming year. Hugh Morrow, president of the Sloss-Sheffield Steel and Iron Company, states that fundamentals of business are all right and that there is nothing in sight to prevent an average in 1928 of the past several years. Others express belief that there will be activity the coming year, stabilizing operations to function well.

Alabama furnace interests will start the coming year with orders calling for a fair amount of iron on hand. Steel orders have been reported from time to time, railroads having placed rail orders with indications of additional orders later on. Coal mining operations are fairly steady now and all indications are for continued production at about the same pace as now. James L. Davidson, secretary of the Alabama Mining Institute, is firm in the belief that there will be warrant for greater output. Railroads take about 30 per cent of the coal produced in this State. It is estimated that further development in the manner of burning coal will bring about a greater tonnage of the product. Portland cement producers are expressing confidence as to the market conditions next year and Lindley C. Morton, president of the Phoenix Portland Cement Company, feels sure that there will be greater volume in production the coming year.

Machine Shops Active.

Machine shops and foundries are still quite active. Diversification in these establishments is the principal item of information, some of the departments working to capacity. Tank makers are still busy rushing out tanks on contracts received during the past few weeks and to be received at places of use before the holiday actually sets in. There are prospects of an activity immediately after the turn of the year, storage being in mind. While a lull has been under way, comparatively speaking, for several weeks, there has been no interference with the immense amount of development that was started months and months ago.

The coke market is steady, independent producers moving out the foundry coke without trouble. The domestic coke is finding a better demand and the prospects for the future are very bright. Foundry coke base is firm around \$5.

The scrap iron and steel market shows very little change,

quotations being low and unsettled. Heavy melting steel has been firm at \$10 to \$10.75 per ton, delivered, for some time. Dealers have no difficulty in obtaining all the old material needed. Yard forces have been maintained well for a long while, meeting specifications of the consumers. Foundries and machine shops are requiring cast and stove plate. Seventeen open-hearth furnaces out of 23 are in operation.

The eighth annual meeting of the Associated Industries of Alabama was held in Birmingham recently with fairly good attendance, L. Sevier being re-elected president.

Quotations for pig-iron and iron and steel scrap follow:

FIG-IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$16.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$16.50; iron of 2.75 to 3.25 per cent silicon, \$17.00; iron of 3.25 to 3.75 per cent silicon, \$17.50; charcoal iron, f. o. b. furnace, \$29.00.

OLD MATERIAL.

Old steel axles	\$16.00 to \$17.00
Old iron axles	16.00 to 17.00
Old steel rails	11.50 to 12.00
Heavy melting steel	10.50 to 10.75
No. 1 cast	14.00 to 14.50
Stove plate	13.00 to 14.00
No. 1 railroad wrought	11.50 to 12.00
Old car wheels	14.00 to 15.00
Old tramcar wheels	14.50 to 15.00
Machine-shop turnings	8.00 to 9.00
Cast-iron borings	8.00 to 9.00
Cast-iron borings (chem.)	13.00 to 13.50

Bethlehem System of Pricing and Its Significance.

Pittsburgh, December 19—[Special.]—Reflection of steel sellers in the past week on the new pricing system announced by the Bethlehem Steel Company and referred to in the last report has led to a strong belief that the new system is likely to help greatly in stabilizing the market in bars, shapes and plates. Eastern territory is given a price basing of its own, which it has long needed. That will be an advantage to the East, while the Pittsburgh market will be steadier, as it will be relieved of suspicions of shading there have been, when, as often if not usually occurred, prices were made in the East which after deduction of freight represented lower figures than were being quoted in the Pittsburgh market.

The Pittsburgh market on bars, shapes and plates has been 1.80 cents, the Chicago market being 1.90 cents. The new Bethlehem prices are 1.90 cents, f. o. b. Lackawanna (Buffalo) on bars, shapes and plates, and 1.95 cents Bethlehem on shapes, 1.95 cents Coatesville on plates and 1.95 cents Sparrows Point (Baltimore) on plates. Various complicated comparisons can be made showing how these new prices compare, for delivery at Eastern points, with a basis of 1.80 cents Pittsburgh plus freight, but as prices may change the main point is that if the system succeeds the East will have its own prices. On a general average they will be lower.

Opinion in the trade is that the new system has come to stay. Pittsburgh and Youngstown mills will, of course, meet the new prices to the extent they find desirable, as the East consumes much more steel than is made in the East. It is thought quite likely that Bethlehem's move will be followed by the Federal Trade Commission dropping its case against the company for absorbing other steel companies, a case that has been getting nowhere.

The Steel Corporation's unfilled tonnage report for November was not favorable, all things considered. There was an increase in unexecuted obligations of 113,404 tons in November, following 192,927 tons increase in October, but during the two months about 1,300,000 tons of rail business was closed, the Steel Corporation receiving approximately one-half, while rail shipments were light. Thus in other steel products there were lighter bookings than shipments. Real increases in all

lines are now to be expected, not only for December but for several months to come.

Steel mill operations are running at approximately the same rate as since July 1, making a good showing, as there is little, if any, year-end decrease. The practice of prompt buying leaves consumers and jobbers with no stocks to liquidate at this time.

Both by current indications and by the uniform precedent of recent years the rate of steel production is virtually certain to increase decidedly in the next three months, with March production one-fourth to one-third larger than the average rate of last month and this.

Rail Buying.

The total in the rail buying movement now nearing its end is likely to be 1,600,000 to 1,700,000 tons, or about the same as in the past couple of years. Freight car inquiry has been appearing in volume and fairly heavy buying is expected for several months, after six months of practically no buying.

The automobile industry is not increasing its steel buying thus far, but the movement is fully expected very shortly.

The American Sheet and Tin Plate Company has advanced its prices to 2.90 cents on black sheets and 3.75 cents on galvanized sheets. A few independents had previously announced advances, and others are now expected to follow. Buyers have had opportunity to cover more or less for first quarter, so that the effectiveness of the advance will be somewhat delayed. Strips are still rather unsteady. The new nail card and base price are still to be tested.

The Metal Market.

New York, December 19.—[Special.]—The producers of non-ferrous metals are content to rest on past laurels for the rest of the year. They do not expect much in the way of orders and will be contented if they hold prices firm in the interim. Prices of all the major metals have stopped advancing, but they are not slipping back in any degree worthy of comment.

Quietness for the second half of December is not an absolute rule, however. Once, since the war, the sales of copper between Christmas and New Year's day were larger than for any entire month previously that year. However, in view of the heavy sales of copper over the past six weeks, it is doubted if that experience will be duplicated this year. In fact, the copper producers are positively pleased that selling to European consumers has come to a halt. Any further purchasing would mean the piling up of a surplus there; it would make a fictitious advance in prices, followed probably by an injurious decline. Moreover, it would give control of the copper situation to the European consumers, a control which is now so firmly in the hands of the American producers.

The business world in general is coming to the year's close in a genial mood and all seem confident of a good year in 1928. Prospects in the steel industry are brightening, orders are increasing, prices are becoming firmer and production is holding its own. Consumers have very meager stocks in all commodities, and hence no slack must be taken up when the 1928 demand starts in earnest.

Zinc Pauses for Second Wind.

Standing at the other end of the scale from copper as to outlook is zinc, which is still depressed. Prices were gradually sagging during the week, with the quotation close to the year of 5.60 cents per pound, East St. Louis. It has become evident that the zinc consumers have covered their needs farther into the future than has been their wont, indicating that purchases over the next few weeks will be light.

Some interesting statistics for November were announced

during the week. Those pertaining to copper were not favorable on the surface, as they showed an increase in total refined and blister stocks of about 10,000 tons, while deliveries declined from October by 16,000 tons. Moreover, the mine production of copper was slightly greater in daily rate. However, the official statistics as issued by the American Bureau of Metal Statistics did not reveal the enormous sales for export last month, which unofficially are said to have been the largest in over a year. Copper sold then will be delivered this month and next, and hence the statistics for these months should be much better.

Copper Stocks Increase.

Stocks of refined copper at the end of November totaled 90,874 short tons, a gain by 6992 tons; production was 118,269 tons, while shipments were 111,277 tons. Of the shipments, 52,013 tons were for export and 58,919 tons for the domestic consumption.

Surplus stocks of zinc increased 3097 tons during November, a showing better than had been indicated by statistics for the first half of the month, as issued by the American Zinc Institute. During the first half, the increase in surplus stocks was nearly 3000 tons. Evidently, conditions were better balanced toward the close. In fact, it is customary for shipments of zinc to pick up the second part of the month.

Since November statistics in tin came out early in December; the tin trade now turns to predictions for December. The outlook statistically is not favorable and a large increase in the world's visible supply will probably result. However, this is not as serious as it would be in the other major metals, because tin resources are more limited, no new sources having been discovered in several years. Straits shipments of tin this month will probably be from 7500 to 8000 tons, the largest this year. During the first 12 days of the month, the shipments had been 3500 tons. American tin deliveries will probably be light this month, because of the desire to keep inventories low. Stocks of tin in the warehouses of the United Kingdom are gradually increasing and the proportion of better grade tin in them is gaining. Thus, 55 per cent of the tin is Straits or its equivalent; whereas, a month ago, only 10 per cent was of the more refined quality.

Copper producers abandoned the price of 14¼ cents, delivered to the Connecticut Valley, early in the week and fell back to 14½ cents, the higher price never having been firmly established by sales. By the middle of the week some copper was available in a small way at 14 cents. The export price was held strongly at 14½ cents c. i. f. European ports.

High Prices Close the Year.

It is remarkable that copper is closing the year at the highest price for that year during a 12-month period, in which domestic consumption fell considerably short of the preceding period. Heavy export sales were, of course, the crux of the matter. Copper consumers have not bought beyond February delivery and probably 75 per cent of the February requirements are yet to be purchased. Three or four years ago orders would have been on books for even May delivery.

Lead has been holding remarkably steady at 6.35 cents per pound, East St. Louis, and 6.50 cents, New York. Demand has been much more quiet than during recent weeks, but this satisfied the producers, who are well sold ahead on production this month and next. The expected revival in automobile demand next year is causing the battery makers, and hence lead producers, to be optimistic over the outlook.

Zinc has been very quiet on the surface, though this "surface" is often deceptive, since the zinc producers have been more aggressive sellers in recent years. They canvass consumers and do not wait for formal inquiry by wire or mail as was their custom. This lack of open inquiry gives the appearance of extreme quiet.

RAILROADS

Record Broken by Freight Car Movement.

A new high record in the average daily movement per freight car was established by the railroads of this country in October, according to the Bureau of Railway Economics. The average for the month was 34.7 miles per day, which was an increase of four-tenths of a mile above the best previous average established in October last year. This also was an increase of 2.4 miles above the average for October, 1925. The railroads also established a new high record in the average daily movement per freight car for the first 10 months this year, for which period an average of 30.7 miles was attained. This was an increase of three-tenths of a mile above the average for the corresponding period last year.

Extension to Floydada, Texas, Ready by March.

Floydada, Texas, Dec. 14—[Special.]—Right of way for the extension of the Quanah, Acme & Pacific Railway into Floydada has been obtained and plans adopted for erecting a passenger station here to cost \$40,000, according to Charles H. Sommer of St. Louis, president, who, accompanied by A. F. Sommer, vice-president and general manager, has just completed a trip of inspection over the line under construction. The grade all the way from McBain to Floydada is practically completed and laying of rails will be started January 15, it is stated. It is indicated that trains will begin running to Floydada by March 1.

It is expected that the St. Louis & San Francisco Railway, of which the Quanah, Acme & Pacific is a subsidiary, will realize a large increase of traffic from the extension as it will intersect here with the branch of the Atchison, Topeka & Santa Fe Railway that runs to Plainview, there joining the latter's main system which gridirons northwest Texas. These connections will afford a new and shorter rail route between the South Plains and Fort Worth, including many intermediate points.

Proposed Merger of Two Railroads in the South.

Plans have been completed for consolidating the Louisiana Railway and Navigation Company and the Louisiana and Arkansas Railway under the new name Louisiana and Arkansas Railroad, according to a press report from Pine Bluff, Ark., quoting Harvey C. Couch, who recently bought the last named line for himself and associates. Mr. Couch is further reported as saying that soon the plan will be submitted to the Interstate Commerce Commission for approval, and that it will involve about 800 miles of railroad, the Louisiana Railway and Navigation Company having over 500 miles and the Louisiana and Arkansas Railway about 300 miles.

Associated with Mr. Couch in the deal for the Louisiana and Arkansas Railway, according to the report, are Rogers Caldwell of Caldwell & Co., bankers, Nashville, Tenn.; James P. Butler, president of the Canal Bank and Trust Company, New Orleans, La.; W. C. Ribenack, president of the Stout Lumber Company of Thornton and Little Rock, Ark.; C. P. Couch, vice-president, Southern Utilities Company, Dallas, Texas; T. J. Gaughan, Camden, Ark.; C. S. McCain, president, National Park Bank, New York city; Dean Mathey of Dillon, Read & Co., New York city; C. H. Moses of Little Rock, and others.

Connections of the roads include the Kansas City Southern, the Texas and Pacific, the St. Louis-San Francisco and the Rock Island systems.

FRISCO SYSTEM GETS INTO MOBILE.

Completion of Extension by Alabama, Tennessee and Northern Railroad Assures Early Use of Trunk Line.

The Alabama, Tennessee and Northern Railroad Company has just built its extension of 30 miles into Mobile, Ala., making, in connection with the St. Louis-San Francisco Railway, a new through trunk line route to that port via Aberdeen, Miss., and Aliceville, Ala.

In reply to a letter President John T. Cochrane has sent the MANUFACTURERS RECORD the following facts concerning this important bit of railroad construction:

"The Alabama, Tennessee and Northern Railroad has been operating for some years from Reform, Ala., where it connects with the Mobile and Ohio Railroad, through York, connecting there with the Queen and Crescent route of the Southern Railway, between Cincinnati and New Orleans and another line of the Southern running from York east to Selma, Rome and Atlanta, Ga., thence south to Calvert, Ala., where it has had connection with the Southern Railway's Mobile and Birmingham line. This main track was 186 miles long, with about 20 miles of siding and spur tracks.

"The St. Louis-San Francisco Railway something over a year ago decided to extend its line from a junction with its main line at Amory, through Aberdeen, Miss., on to Columbus, Miss., and Aliceville, Ala., where it connects with the Alabama, Tennessee and Northern, 21 miles from Reform.

"A reciprocal traffic arrangement was effected between the 'Frisco' and the Alabama, Tennessee and Northern for the preferential routing of through business between points on the 'Frisco' and its connections and Mobile, Ala., and other points on the Alabama, Tennessee and Northern, which in return agreed to preferentially route via the 'Frisco' all business it controlled from Mobile and other stations on the line. While there is no financial joint interest or affiliation, the agreement on traffic is thought advantageous to both lines and the two are 100 per cent allies.

"On the effecting of this arrangement the Alabama, Tennessee and Northern agreed to extend its own rails into Mobile and develop terminals there. The distance to be constructed was about 30 miles. Work has been going on since about May. The track is now laid over the extension and gravel ballasting is being fast completed. The track is standard in every particular, the first 10 miles being laid with 80-pound rail and the other 20 miles with 85-pound rail. Bridges are built to standard Coopers E-60 loading.

"The contractors on this work were Hall Construction Company of Bainbridge, Ga., and Sutton Brothers of Jacksonville, Fla., who did grading and trestling. The Atlantic Bridge Company of Greensboro, N. C., did the concrete piers and the steel bridge over Chickasaw Creek, near Mobile. The Roberts Construction Company of New Orleans, La., did the track laying.

"The Alabama, Tennessee and Northern Railroad enters Mobile through the Alabama State Docks Terminal Railway yards and has leased for 99 years a plot of ground within the city limits and close to the retail and wholesale sections for the freight depot and yards, and terminals sufficient to handle the business both of the 'Frisco' and the Alabama, Tennessee and Northern are being constructed on this property.

"The Frisco Railway extension has now reached Aliceville, Ala., and the combination of the two gives a direct and short line to Memphis, Kansas City, St. Louis and territory beyond.

"The \$10,000,000 State Docks at Mobile are nearing completion and most of the units are already in operation. The final units are expected to be finished by May or June, 1928, and it is expected as soon as ballasting is finished on the Alabama, Tennessee and Northern between Calvert and Mobile and on the 'Frisco' between Aliceville and Aberdeen,

through service will be put into effect. This will come about around January 1, or early thereafter."

The extension of the St. Louis-San Francisco Railway from Aberdeen, Miss., to Aliceville, Ala., is the first part of the "Frisco's" extension from Aberdeen to Kimbrough, Ala., 150 miles, at which latter point connection is to be made with the Muscle Shoals, Birmingham and Pensacola Railroad (which the Frisco now controls), to enter Pensacola. Thus the Frisco will have practically two Gulf ports for its system; namely, Mobile and Pensacola, but it will be some time before the entrance to Pensacola is perfected by the completion of the extension to Kimbrough.

Use of Fuel Oil on Steam Locomotives As Well As the Oil-Electric Types.

Increased prices of fuel oil, especially in the South Central States, and increased efficiency in its utilization, especially in California, Texas and Louisiana, caused a slight decrease in consumption by the railroads of the country in 1926, as compared with 1925, says the United States Bureau of Mines, Department of Commerce, in a recent report. During 1926, a total of 71,446,956 barrels of fuel oil was purchased by the 152 Class 1, 2 and 3 railroads included in the Bureau of Mines compilation. Of the total amount purchased, 68,836,850 barrels was consumed and 2,610,106 barrels added to the quantity in storage. Of the total consumed, 59,329,690 barrels was burned as locomotive fuel, and 9,507,160 barrels was consumed in shops, power plants, ferry boats and for other uses.

During 1926, 11 oil-electric locomotives were placed in service and one in April, 1927. Accordingly, on April 30, 1927, twelve 60-ton, 300-horsepower and three 100-ton, 600-horsepower locomotives of this type were in use. Four more oil-electric locomotives were under construction at the end of April, one 145-ton, 750-horsepower; two 100-ton, 600-horsepower, and one 60-ton, 300-horsepower locomotive.

Manufacturers are experimenting with the construction of larger, more powerful oil-electric locomotives. One company was building an experimental 1000-horsepower oil-electric locomotive, using a 6-cylinder, 4-cycle Diesel engine. A second manufacturer is working on a locomotive with a 12-cylinder, 4-cycle engine rated at 960 horsepower at 325 revolutions per minute. Three other companies are working on locomotives with a 6-cylinder, 4-cycle engine rated at 750 horsepower at 500 revolutions per minute. One railroad company has designed a new type of Diesel locomotive and is building three of these locomotives in its own shops.

Ton Mileage Over 400,000,000,000 in 10 Months.

According to the Bureau of Railway Economics, the volume of freight handled by the Class 1 railroads during the first 10 months of 1927 amounted to 402,848,468,000 net ton-miles. This was a decrease of 2,377,318,000 net ton-miles, or six-tenths of 1 per cent below the corresponding period last year, but was 6.7 per cent above the corresponding total for 1925. The volume of freight traffic handled by these railroads in October amounted to 45,552,311,000 net ton-miles, which shows a decrease of 2,743,750,000 net ton-miles, or 5.7 per cent under October, 1926.

Port of Mobile Bulletin.

The Port of Mobile Bulletin for December and January, issued by the Alabama State Docks Commission, gives dates of sailing of vessels, and also other shipping information of timely value. Attention is directed to the fact that the State Docks Commission offers a large amount of property available for industrial development and that tonnage producing industries locating there will enjoy certain tax exemptions.

Question of Methods of Valuation of Railroads Yet to Be Decided.

A. P. Thom, general counsel of the Association of Railway Executives, Washington, D. C., is quoted as saying that the decision of the special court at St. Louis in the St. Louis and O'Fallon Railroad valuation case did not give its approval to the methods of valuation now pursued by the Interstate Commerce Commission, but only decided as to the amount of the valuation of the St. Louis and O'Fallon line, thus leaving the subject of procedure to determine valuation of any railroad to be further considered and acted upon.

Therefore, to that degree it appears that the O'Fallon case cannot be deemed a test case—as was supposed—covering the general railroad valuation question, but that the methods pursued in valuation of railroads will be presented to the United States Supreme Court when the appeal in the case is filed.

As before stated, it is hoped to get an early decision of the point at issue between the railroads and the Commission, but it is anticipated that it may be obtained during the next spring term of the court.

Freight Traffic Well Sustained.

Loading of revenue freight during the week ended on December 3 totaled 915,408 cars, according to reports filed by the railroads with the Car Service Division of the American Railway Association. This was an increase of 74,605 cars above the preceding week this year, when loadings were reduced somewhat due to the observance of Thanksgiving Day. The total for the week of December 3 was, however, a decrease of 135,811 cars under the same week last year and 105,431 cars below the same week in 1925. Since January 1 last there have been 49,197,453 cars loaded with revenue freight, which compares with 50,401,207 cars loaded during the corresponding period of 1926 and with 48,544,657 cars loaded in same period of 1925.

Manufacturers Would Protect Children.

New York, December 17.—As the legislatures of Kentucky, Louisiana, Maryland, Massachusetts, Mississippi, New Jersey, New York, Rhode Island, South Carolina and Virginia are expected soon to consider legislation concerning the education and employment of young boys and girls, John E. Edgerton, president of the National Association of Manufacturers, has asked manufacturers in those States to study the program advanced by the committee on junior education and employment of the association for application to local situations.

The program of the manufacturers' committee relating particularly to child labor, embraces:

Requiring employment certificates of all children applying for jobs; certificate of health and physical fitness given by designated State physicians; completion of the sixth grade in school in States not already having an educational qualification, with proper provision for permits to work during vacation periods, and for the release from school of children who are unable to profit by further education of the types available; requiring of all employed children a minimum of four hours a week of continued education; limiting the hours of labor of all children 14 and 15 years of age, employed in manufacturing, mining, transportation or commercial occupations, to not more than 48 hours a week, with a prohibition against work after 9 o'clock at night or before 7 in the morning; strengthening the laws forbidding the employment of children in hazardous occupations by more carefully defining the specific hazards.

TEXTILE

West Boylston Mill at Montgomery Houses 32,000 Spindles—Construction Cost \$600,000—Completed in Record Time.

The Batson-Cook Company, Inc., of West Point, Ga., general contractors for the erection of the new textile mill at Montgomery, Ala., for the West Boylston Manufacturing Company of Easthampton, Mass., advises that this unit consists of 32,000 spindles. The mill building is approximately 450 feet long, 132 feet wide and three stories high, while the warehouses and picker room are also three stories and about 175 by 100 feet. A boiler house has also been erected, together with other accessories, and a mill village completed which consists of 124 cottages, averaging a little better than four rooms each. A store of modern construction has been erected at a cost of \$10,000.

The entire project was awarded early in June and the mill completed and put in operation in a little less than six months, the buildings having been erected in record time. The work involved a construction cost of about \$600,000. Robert & Co., Inc., of Atlanta are the engineers.

Gagner Manufacturing Company Incorporated.

Statesville, N. C.—A certificate of incorporation has been filed in the office of the Secretary of State at Raleigh for the Gagner Manufacturing Company of Statesville, to manufacture yarns and similar materials. The company has an authorized capital stock of \$300,000, its incorporators including S. B. Bristol, J. M. Deaton of Statesville, and Henry D. Gagner of Adams, Mass., and others.

As previously reported, general contract has been awarded to the Grier-Lowrance Construction Company, Statesville, for the erection of a silk tapestry mill here, to be one story, 216 by 92 feet, of daylight construction, with brick walls, built-up roof and wood floors. Contract for structural steel has been awarded to the Virginia Bridge and Iron Company, Roanoke, and to the William Bayley Company of Springfield, Ohio, for steel sash.

Hosiery Mill at Charlotte Nears Completion.

Charlotte, N. C.—The new mill of the Nebel Knitting Company will be in operation by January 1. It will have an initial capacity of 1500 dozen pairs of hose a week. The new building is two stories high of modern factory construction, built to insure the maximum amount of daylight and safety for operatives.

The company was organized here in 1923 when W. M. Nebel came to North Carolina from the North and formed a company with a capital of \$200,000. Since then the capital has been increased to \$500,000 and the factory site increased to include an entire block.

New Mill Unit for Habersham Mills.

Habersham, Ga.—Plans are being prepared by Park A. Dallis, Atlanta, for a new mill unit here for the Habersham Mills, of which T. E. Stribling is president and superintendent and S. Y. Stribling secretary. The building will be two stories, with brick walls, wood floors and built-up roof and will be constructed by day labor under the supervision of the company. The present plant is equipped with 15,360 ring spindles for the production of cotton yarns, including 30-2 skeins, tubes, long chain and ball warps.

Southern Farmer Can Aid in Increasing Use of Cotton.

"Cotton growers are beginning to realize more forcibly than ever before the economic value of the cottonseed industry and to appreciate the wonderful advances it has made," according to C. O. Moser, president and general manager of the American Cotton Growers Exchange, in a recent statement at Memphis. "The farmer can assist in the movement to extend the market for cotton by using cottonseed products whenever and wherever possible. This he should be doing because surely every one must be aware of the purity and the quality of these products."

"On my own farm in Texas," said Mr. Moser, "I have for many years raised cattle on a more or less extensive scale and I have used that wonderful product of the cottonseed—meal—very largely and with most gratifying results. I have felt that in using it I was patronizing myself because I am a grower of cotton. We have used cottonseed oil products, both as shortening and as salad oil in our home to our delight and satisfaction. They are pure, healthy and palatable."

\$150,000 Additional Stock to Build Mill Unit.

Winchester, Va.—Stockholders of the Arthur G. Jones Woollen Mills Corporation have authorized the company to issue \$150,000 of new 7 per cent preferred stock, a large portion of which is said to have been applied for by local interests. A part of the funds from this issue will be used for additional working capital, but it is understood that most of it will be expended for the erection of another mill unit.

This company succeeded the Winchester Woollen Mills Company about two years ago and has since increased the capacity of the plant from 3000 to 10,000 yards of cloth weekly. Its plant is now equipped with 3 sets, 1296 woollen spindles, 17 broad looms and dyeing department for the production of cassimeres, meltons, kerseys, overcoatings and cap cloths. Arthur G. Jones is president and Max Krol treasurer.

Contract for Warioto Mill Addition.

Contract has been awarded to the Fiske-Carter Construction Company of Greenville, S. C., for an addition to the Warioto mill at Nashville, Tenn., of the Morgan and Hamilton Company, according to an announcement by J. E. Sirrine & Co. of Greenville, engineers for the project. The new addition will be 88.2 by 109 feet, one story and finished basement, construction to consist of brick pilasters, steel beams and cast iron columns. Looms from the present weave room will be moved into the first floor of the new building and the basement will be used for a machine shop and storage.

The present mill is equipped with 32,024 ring spindles, 738 looms, finishing and dyeing departments for the production of cloth for making flour, meal and feed bags. Jo. B. Morgan is president and general manager.

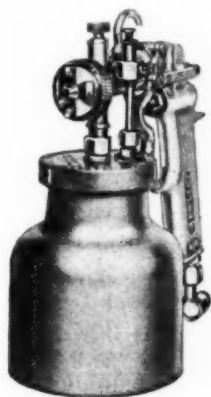
Contract Awarded for New Renfrew Plant.

General contract for the new Renfrew Mill at Travellers Rest, S. C., has been awarded to the Gallivan Building Company of Greenville, S. C., according to advices from J. E. Sirrine & Co., Greenville, engineers for the project. This mill is being erected by interests identified with Woodward, Baldwin & Co., Baltimore, which own and operate the Brandon Mills at Greenville, of which August W. Smith is president and treasurer. Mill buildings will consist of a weave shed, one story, 281 by 138 feet; dyeing and finishing plant, 300 by 203 feet, and a one-story warehouse, 150 by 100 feet, all to have brick walls, concrete footings, built-up roof and wood and concrete floors. It is also planned to build 60 cottages and install a heating plant.

NEW AND IMPROVED EQUIPMENT

Pressure Cup Gun for Paint Jobs.

The accompanying picture shows the new 14-A Pressure Cup Gun manufactured by the Spraco Painting Equipment Company of Boston, Mass., which, it is stated, provides the job shop finisher with the same advantages that the factory finisher has in the pressure gun, for it permits him to use the heavier materials hitherto possible only on gravity or pressure equipment.



NEW PAINT GUN.

It is claimed to be of special value in applying surfacers, for it will put on the equivalent of two ordinary cup gun coats and use a mixture ranging from 75 per cent surfacer and 25 per cent thinner, to 90 per cent surfacer and 10 per cent thinner, which, it is remarked, means a great saving of both time and thinner.

Other points of interest are mentioned as follows: 1—There is no powdered surface, as the speed of application gets the material on wet enough to blend into a proper finish. 2—The gun while spraying may be held in any position without leakage, as there is no open vent hole. 3—It will lay on a heavy coat to fill scratches, eliminating puttying. 4—It eliminates the need for pressure tank and material hose, which are objectionable to the average shop on account of the frequent change of colors and small amount of materials used; it also eliminates the excessive cost of cleaning equipment between color changes. 5—It is a specialized standard pressure gun which assures quality workmanship.

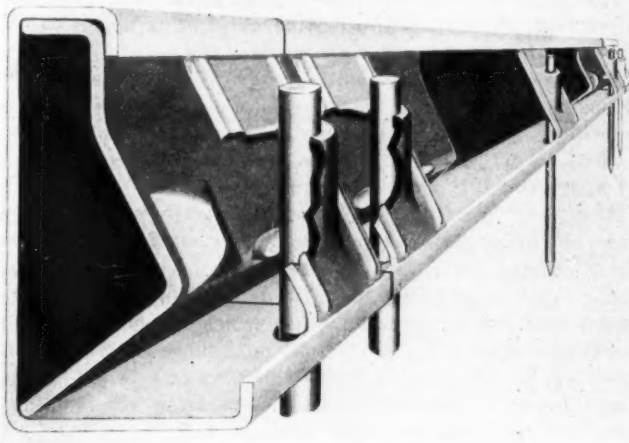
It is further stated that there is perfect atomization and uniform spray at low pressure. There is an adjustable spreader giving fan spray of controlled width in any plane and there is a positive nozzle shut-off, and no "spitting" or leaking after the release of the trigger. A partial pull of the trigger admits air only for dusting or drying off work. The gun is easy to clean and care for and has the shortest possible fluid passage. The needle and the nozzle are the only parts in contact with the paint. There are interchangeable quart or pint aluminum material containers, which can be instantly attached or detached with bayonet lock without sticking or leaking.

A New, Stronger and Simple Road Form.

Some time ago J. N. Heltzel, president of the Heltzel Steel Form and Iron Company, Warren, Ohio, said that the day was not far when the weight and thrust of giant road machinery would compel a complete revolution of steel form design and construction, and now in announcing a new road form of a distinctly different type Mr. Heltzel states that that day has arrived and that his company is not only prepared for the heavy machinery of today but also for future requirements as road machines increase in weight.

In this most efficient and rigid form the design of the Heltzel road rail is unchanged. It is made of $\frac{3}{16}$ -inch special steel plate with double reinforcing flanges and 6-inch base. Massive steel stake pockets are welded to the two rail flanges and big 1-inch round steel stakes are used with an angular shaped steel joint lock made of $\frac{1}{4}$ -inch steel plate. This stake lock wedges between the stakes and the face of the rail with one leg of the lock wedging against the intersection of the face and top of the rail and the other leg wedged against the intersection of the face and base of the rail. Two wedge shaped swells pressed into the stake lock

wedge, one against each stake, make an absolutely positive locking arrangement, and a larger swell pressed into the stake lock serves as a releasing lug which, when tapped with a sledge, unlocks the form. This joint locking arrangement



VIEW OF THE ROAD FORM IN PLACE.

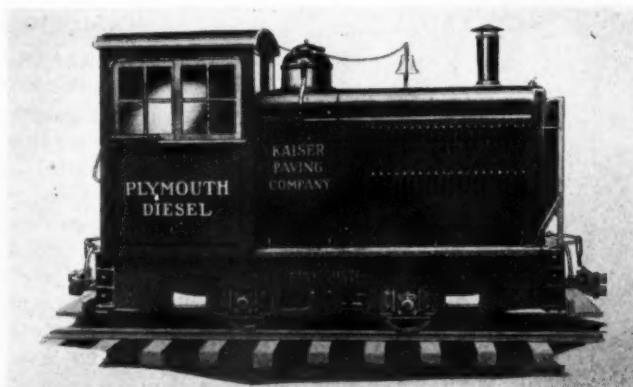
automatically aligns the rail ends and holds them so rigidly that deflection at the rail joint is impossible.

To set the form it is but necessary to simply butt the rails end to end, place the joint lock in position, and drive the stakes. One tap with the sledge locks the forms and aligns the rails. It is known as the "1930" Heltzel Road Form.

Diesel Gear-Driven Locomotive.

What its builders believe to be the first Diesel-powered, gear-driven locomotive built in America has just been brought out by the Plymouth Locomotive Works (The Fate-Root-Heath Company), Plymouth, Ohio.

The big saving in fuel cost effected with the Diesel engine is, of course, the main reason for adopting this form of power. The cost of fuel oil varies from 3 cents per gallon on the Pacific Coast to 6 or 7 cents in the Midwestern States. The



TEN-TON DIESEL GEAR-DRIVEN LOCOMOTIVE.

engine consumes from $2\frac{1}{2}$ to $3\frac{1}{2}$ gallons per hour, depending on the class of service; and the consumption of lubricating oil is somewhat less than in a gasoline engine of equal power.

The power plant is a 4-cylinder, 4-cycle, enclosed type Atlas-Imperial Full Diesel Engine $6\frac{1}{2}$ inches by $8\frac{1}{2}$ inches, developing 77 horsepower at a speed of 650 revolutions per minute. Starting is accomplished by compressed air, and a small combined gas engine and compressor is fitted in the

cab for providing starting air. This unit is used for emergency only. The engine has built into it an air compressor that normally supplies all the air necessary for keeping the starting tanks filled.

The transmission follows the standard practice of the Plymouth Locomotive Works, with sliding change gears that give four speeds forward and four reverse. A "Twindisc" clutch is mounted on the front end of the transmission, driven from a driving disc mounted on the engine crankshaft. The final drive from transmission to driving axles is by means of two short hardened steel roller chains.

The weight of the locomotive ready for the rails is 20,000 pounds and the entire weight comes on the wheels, all of which are drivers. This gives a draw bar pull of 5000 pounds on dry rails at $2\frac{1}{2}$ miles per hour. Additional speeds of 4, $8\frac{1}{4}$ and $13\frac{1}{2}$ miles per hour are provided.

The first three of these 10-ton Diesel locomotives were shipped to the Kaiser Paving Company, Oakland, Cal. One Diesel 10-ton locomotive handled six cars of gravel, total weight of cars and load 144 tons, up a 3 per cent grade at a speed of 8.1 miles per hour. On a test anchored pull the locomotive spun the drive wheels on sanded track in second gear. It is also noted that one full tank of fuel oil (50 gallons) lasted 16 hours of continuous operation, representing a fuel cost of approximately 10 cents per hour.

These locomotives are to be made in a range of sizes from 10 tons up to 50 tons and the larger sizes will soon be in production.

Improved and Lasting Chain Hoist.

Described as the "most efficient, most economical and longest-lived lightweight high-speed chain hoist," the new Model K Cyclone Hoist, manufactured by the Chisholm-Moore Manufacturing Company, Cleveland, Ohio, recently made its appearance. It is constructed on the same gyrating yoke principle that is to be found in the previous Cyclone model

hoist, but engineering improvements give it a working efficiency of 90 per cent, as against 80 per cent for the previous models and, it is stated, a length of life, without repairs, considerably longer.

In a series of rigidly conducted tests the new hoist was operated continuously for 320 hours. At the end of that period it was taken down and thoroughly inspected. The report says it was found that no repair parts were needed and only slight wear was noted on the working parts. Considering that this test was the equivalent of lifting and lowering 38,400 one ton loads, the performance of the hoist becomes all the more remarkable.

Among the changes that made this record possible was the addition of anti-friction bearings at every rotating point. One of the most important changes is in the four eccentric roller bearings. In the old models the rollers were loose but in the new model these roller bearings are built in one complete unit. Another important improvement is the long-life lift wheel. The manufacturers developed a new steel alloy for this

part far harder than any other available material, and which gives exceptionally clean and

accurate chain pockets, and, in the test referred to above, showed practically no sign of wear after 320 hours.

Another feature is that all parts are strictly interchangeable. It is possible to assemble all parts into the hoist frame without regard to "right or left," "upside or down," center punch marks or other generally accepted means of matching parts. Together with the exceptionally long-life feature, this interchangeability promises to keep maintenance bills down to a minimum. The entire mechanism is enclosed in a dust-proof, oil-tight frame and the hoist needs to be packed with grease only once a year under ordinary usage.

Turpentine and Rosin Stills Can Be Improved.

The old-type fire still, on which producers of naval stores have relied for many years for separating turpentine and rosin, can now be improved by converting it into a steam still, according to the United States Department of Agriculture. The new still is an outgrowth of the work of the Naval Stores Unit of the Bureau of Chemistry and Soils. Although the improvement had been in contemplation for some time an opportunity to try it out came only when one of the progressive naval stores producers of Mississippi appealed to the bureau for assistance in improving his still practice and in producing uniformly higher grades of rosin than was possible with the fire still. The department has made application for a patent covering the new still which will be dedicated to the public. Practical adaptation of the new still has been made and several large companies are contemplating converting their old fire stills into steam stills.

While turpentine was formerly more valuable than the rosin, the situation now is usually reversed. Rosin is now more valuable than turpentine and operators are desirous of producing the highest grade of rosin possible. The new steam still meets that requirement and many others. Results of experiments in which the several kinds of gums collected at various times of the year were distilled indicate that this steam still will produce a uniformly higher grade of rosin than the old fire-still, and larger yields of turpentine; and that it will do the work with less fuel and more speed, and consequently with less cost. Another advantage is the greater safety with which the steam still may be operated. In fact, it is said to be almost fool-proof. The development of this simple but efficient means of converting fire stills into steam stills is regarded as an improvement contributed to the naval stores industry, the products of which are valued at \$60,000,000 annually.

The Naval Stores Unit of the Bureau of Chemistry and Soils has prepared blue prints and specifications for distribution to naval stores producers who may desire to convert their old fire stills into the new steam stills.

Producing Poultry Shell and Agricultural Lime.

R. M. Janney, president of the Roaring Springs Marl Lime Company, Inc., of Gloucester, Va., advises that his company is developing 25 acres of oyster-shell deposits for the production of poultry shell and agricultural lime as a by-product. The acreage is said to have been once the bottom of the ocean and the deposit an old oyster rock. The latter is about 40 feet thick, consisting of a large number of different varieties of shell and bones of large fish. Operations cover the digging, drying, cracking and screening the shells, using about 60 per cent of the gross product. The lime is said to analyze 98 per cent.

Machinery consists of hoists, boiler, conveyor, screens, engine, drag line, bucket and pumps and the output of the plant is about 40 tons per day. In addition to Mr. Janney, other officers of the company include T. G. Blakeman, vice-president, and M. B. Seward, secretary and treasurer.



NEW CHAIN HOIST.

available material, and which gives exceptionally clean and

CONSTRUCTION DEPARTMENT

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained.

The date at the end of an item indicates issue of the Manufacturers Record in which earlier facts about the same enterprise were published.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$30.00 a year.

Airports, Airplane Plants, Etc.

Fla., Arcadia—City, reported, plans establishing municipal airport. Address City Clk.

Fla., Palm Beach—City, reported, plans erecting \$15,000 hangar. Address M. D. Carmichael, Palm Beach.

Ga., Augusta—General Electric Co., 123 Spring St., Atlanta, general office Schenectady, N. Y., furnished following equipment to be used in lighting municipal airport, Raleigh H. Daniel Field; 24-in. revolving beacon, equipped with 900-watt, 30-volt lamp; one FK-35 oil circuit breaker mounted on panels; 25-kv-a distribution transformers; 33 clear series boundary lights, 6 green service approach lights, 12 red multiple obstruction lights; one airport twin floodlight, equipped with two 10-kw., 110-volt Mazda lamps; one constant current transformer and controller. 12-8

Miss., Laurel—Laurel Aero Corp., chartered; Guy E. Cathcart, W. C. Gorman, Alton E. Hesler.

N. C., Gastonia—W. L. Balthis, 302 S. York St., Joe S. Wray, 110 E. Third Ave., and associates, interested in proposed establishment of airport.

N. C., Shelby—A. E. Cline, W. W. Washburn, City Commrs., and associates interested in establishing proposed landing field.

Okla., McAlester—City, J. B. McAlester, Mayor, reported, has site of about 640 acres for proposed aviation field.

Okla., Okmulgee—F. M. Wood, Chmn. of Aviation Committee, reported, leased 100-acre site; establish airport.

S. C., Cheraw—Thomason-Moore Airways, Inc., chartered; C. Thomason, Pres.; D. W. Moore, Sec.

Tex., Dallas—City voted \$400,000 bonds for municipal airport; E. A. Wood, City Engr. See Financial News—Bond Issues Proposed. 11-3

Tex., Waco—City Comsn., reported, plans leasing Rich Field for airport; contemplates bond issue. 10-13

Bridges, Culverts and Viaducts

Proposed Construction

Ala., Wetumpka—Elmore County and State Highway Dept., Woolsey Finnell, Highway Director, Montgomery, reported, plan 500-ft. concrete and steel bridge over Coosa River, connecting business with residential section of Wetumpka; 30 ft. wide, 6-ft. walkway on each side; W. A. McCalla, State Highway Engr. Address County Commrs.

Ark., Arkansas City—Henry Thane, reported, plans toll bridge across Mississippi River between Arkansas City and Bolivar County, Miss.; cost between \$4,000,000 to \$5,000,000.

Ark., Garland—State Highway Comn., Dwight H. Blackwood, Chmn., Little Rock, considering bridge across Red River at Garland; C. S. Christian, State Highway Engr.

Fla., Jacksonville—War Dept., Washington, D. C., reported, approved plans Atlantic Coast Line R. R. Co., J. E. Willoughby, Ch. Engr., Wilmington, N. C., to reconstruct bridge over New River, Jacksonville.

Fla., Ormond—C. B. Jones, reported, receives bids Jan. 6 for wooden bridge across Halifax Drainage Canal.

Fla., Vero Beach—War Dept., Washington, D. C., reported, approved plans Atlantic Gulf Special Road and Bridge Dist., for bridge over Kissimmee River at Turkey Hamlet.

Fla., Winter Beach—War Dept., Washington, D. C., reported, approved plans Indian

River County Commrs. for bridge over arm of Indian River, near Winter Beach.

Ky., Ashland—City, Charles F. Weaver, Mayor, receives bids Dec. 24 for franchise to construct, maintain and operate toll highway and interurban railway bridge and approaches over Ohio River, between Ashland, and Coal Grove, Ohio; H. L. Carroll, Clk.

Ky., Hickman—E. M. Elliott and associates, 360 N. Michigan Blvd., Chicago, Ill., reported, granted franchise to build and operate toll bridge over Mississippi River at Hickman; probably joint highway and railroad bridge.

La., Bastrop—Louisiana Highway Comn., Frank T. Payne, Chmn., Baton Rouge, receives bids Jan. 12 to reconstruct Lake La-fourche Bridge, on Oak Ridge-Rayville Highway, Morehouse and Richland Parishes; rebuild eleven 25-ft. panels on timber pile trestle; Nicholls W. Bowden, State Highway Engr.

La., Monrovia—Louisiana Highway Comn., Frank T. Payne, Chmn., Baton Rouge, requests permission from War Dept., Washington, D. C., to construct bridge across Red River at Monrovia, Avoyelles Parish; estimated cost \$400,000; Nicholls W. Bowden, State Highway Engr.

La., Monroe—Louisiana Highway Comn., Frank T. Payne, Chmn., Baton Rouge, plans \$600,000 to \$650,000 bridge over Ouachita River at Louisville Ave.; West Monroe end will be on Trenton St., between Stelle and Mill St.; may let contracts in Feb.; plans extending Louisville Ave. east to connect with DeSard St., east of Five Points; Nicholls W. Bowden, State Highway Engr.

Miss., Biloxi—Harrison County Board of Supvrs., Gulfport, and Jackson County Bd. of Supvrs., Pascagoula, plan 8600 ft. concrete bridge with steel draw span across Bay of Biloxi, connecting Harrison and Jackson Counties on Old Spanish Trail; Harrison County approach to bridge at East Howard Ave.; Harrison County plans selling bonds; H. C. Dietzer, State Highway Engr., Clarence Simmons, Dept. Bridge Engr., Jackson. 7-14

North Carolina—State Highway Comn. received low bids for bridge approach and overpass. See Roads, Streets, Paving.

South Carolina—State Highway Comn. received low bids for 13 bridges, underpass and 2 bridge approaches. See Roads, Streets, Paving.

Tenn., Lewisburg—Marshall County Commissioners plan building bridge; cost \$30,000. See Financial News—Bond Issues Proposed.

Tenn., Paris—Dept. of Highways and Public Works, C. N. Bass, Ch. Highway Engr., Nashville, plans bridge across Tennessee River, on bluff between Paris Landing and mouth of Sandy, near Centerville; plans to be approved by War Dept., Washington, D. C.

Texas—See Roads, Streets, Paving.

Tex., Dallas—See Roads, Streets, Paving. 11-3

Tex., Houston—City, George Woods, Mgr., plans \$50,000 bridge across White Oak Bayou, and \$45,000 grade fill in connection with 50-ft. pavement on Yale St.; J. C. McVea, City Engr.

Tex., Houston—Harris County, W. L. Washburn, County Auditor, plans receiving bids soon for 33-ft. span concrete bridge, 21 ft. high, over Fresh Water Bayou, on Houston-Goose Creek Highway; estimated cost \$12,000; A. J. Wise, County Engr. War Dept., Washington, D. C., lately approved plans.

Tex., Nacogdoches—City, Bridge and Street Committee, considering bridge on Banita Creek at present foot of Pecan St.

Tex., San Antonio—City Comn. plans receiving bids Dec. 27 for steel bridge at Arse-

nal St.; estimated cost \$30,000; Col. S. F. Crecelius, Flood Prevention Engr.

Va., Langley Field, Ind. Branch Hampton—Quartermaster Dept., Langley Field, has under consideration application to War Dept., Washington, for hydraulic fill and concrete bridge across southern branch Back River, about 3 mi. from Hampton and 4 1/2 mi. above mouth of river, from southern point of Langley Field, at site of existing bridge; 5 openings, each having vertical clearance of 10 ft. above mean low water, 4 having horizontal clearance of 18 ft. each, 1 with horizontal clearance of 20 ft.; Lieut. Col. H. C. Jewett, U. S. Army Dist. Engr.

Va., Norfolk—War Dept., Washington, D. C., reported, approved plans Norfolk-Berkely Bridge Corp., to construct new fenders at bridge crossing eastern branch Elizabeth River, Norfolk.

W. Va., Point Pleasant—Point Pleasant and Henderson Bridge Co., C. C. Stone, Pres., plans 600-ft. span traffic bridge with approaches, over Kanawha River; 600-ft., 6-ft. concrete grades on either side; estimated cost \$650,000; William Steenburgen, Const. Engr.; Maj. E. A. Ardery, U. S. Engr., Huntington Dist. 12-15

W. Va., St. Albans—Bridge Committee, St. Albans Business Men's Assn., J. V. R. Skinner, Chmn., receiving plans and estimates for toll bridge crossing Kanawha River, between St. Albans and Nitro, W. Va., either truss or suspension; preliminary estimates of cost \$350,000 to \$400,000.

Contracts Awarded

Fla., St. Augustine—St. Johns County Commrs., O. P. Goode, Clk., let contract for approach trestle, foundations and bascule span for Crescent Beach Bridge, linking Anastasia Island Blvd. with State Road No. 4; E. W. Parker, 305 Cass St., Tampa, at \$56,959 for approach trestle; Tampa Sand and Shell Co., Oak Ave., at \$26,901 for concrete foundations, including bridge tender's house; American Bascule Bridge Corp., American Natl. Bank Bldg., Pensacola, at \$28,749 for bascule span; C. Samuel Johnson, County Mgr. 11-3

Miss., Lexington—Holmes County Board of Supvrs. let contract to M. K. Orr Construction Co., Little Rock, for 2 bridges in Harland's Creek Community; across Moccasin Creek; across fork of Harland's Creek.

Miss., Merrill—Harry E. Bovay, 1743 N. Parkway, Memphis, Tenn., and John E. Stillman, owners, reported, let contract to Austin Bridge Co., 1813 Clarence St., Dallas, for bridge across Pascagoula River at Merrill; 827 ft., with two 175-ft. steel spans, 477-ft. creosoted timber trestle approaches, supported by concrete piers on pile foundations; 18 ft. wide; cost about \$80,000. 12-1

Tex., Terrell—J. A. Hunt, Terrell, has contract at \$12,000 for concrete overpass on highway between Terrell and Elmo, crossing Texas & Pacific Ry.

Canning and Packing Plants

Fla., Jacksonville—Florida Thermoheat Juices, Inc., chartered; S. S. Spencer, H. Clay Crawford, Jr.

Ga., Macon—Continental Canning Corp., W. F. Drake, Mgr., 131 Rose Park, reported, plans expansion to pimento pepper plant.

Tex., San Benito—R. G. Schmidt Canning Co., reported, increase capacity of canning plant.

Clayworking Plants

Okla., Dawson—Acme Brick Co., Edward Podmore, Mgr., 210 W. Fourth St., Tulsa, reported, plans doubling capacity of shale brick plant; present capacity 50,000 brick daily.

Coal Mines and Coke Ovens

Mo., Rich Hill—Osage Coal Co., incorporated; John Monan, J. W. Jamison, Elizabeth Jamison.

W. Va., Charleston—Bills Creek Fuel Co., incorporated; R. H. Dunn, C and Fifth Ave.; George Salame, Sr., Sixth Ave.; Geo. F. Paul, both South Charleston.

Concrete and Cement Plants

Mo., Cape Girardeau—Marquette Cement Manufacturing Co., H. O. Cole, plant Mgr., main office 140 S. Dearborn St., Chicago, building 16 new concrete silos, each 85 ft. high, 25 ft. diam. and will require base of 1600 piling, each of which is 65 ft. in length, capacity of each silo about 680,000 sacks or 140,000 bbls., double storage capacity of plant; E. A. Whitney & Sons, Sioux City, Iowa, have contract for work; MacDonald Engineering Co., 53 W. Jackson Blvd., Chicago, Ill., will build the silos.

Cotton Compresses and Gins

Ark., Jonesboro—Jonesboro Compress, temporary office rear of American Trust Bldg., reported, will rebuild burned unit of compress shed.

Miss., Canton—Weona Gin Co., capital \$10,000, incorporated; J. B. Lee, R. L. Weems.

Cottonseed-Oil Mills

Okla., Ada—Choctaw Cotton Oil Co., capital \$250,000, incorporated; P. A. Norris, J. C. Sparks.

Tex., El Paso—Globe-El Paso Oil Co., 18 Old Fort Bliss, reported, having plans prepared for cottonseed-oil refinery; cost \$250,000. 9-15

Drainage, Dredging and Irrigation

Ark., Piggott—Comms. of St. Francis Drainage Dist. of Clay and Greene Counties, reported, let contract to Omer Dietel, Plymouth, Ind., for construction 8 miles ditches east of Rector, drain about 8000 acres land; excavate 500,000 cu. yds.

La., Baton Rouge—F. A. Woods, Sec. Police Jury, East Baton Rouge Parish, receives bids Jan. 10, 1928, for excavating and clearing Baker canal, etc.; R. Swart, Civil Engr., 340 Lafayette St. See Want Section—Bids Asked.

La., Jennings—Comms. of Grand Marais Drainage Dist., Jefferson Davis Parish, Chas. E. Elber, Sec., receives bids Dec. 29 for work in district; Merrill Bernard, Engr., Crowley. See Want Section—Bids Asked.

Miss., Clarksdale—Coahoma County Drainage Comms. receives bids Jan. 3 for enlargement work in Hopson Bayou Drainage Dist. See Want Section—Bids Asked.

N. C., Charlotte—Comms. of Mecklenburg County Drainage Dist. No. 11, Jas. E. Alexander, Chmn., receives bids Dec. 29 to dredge ditch on McMichaels Creek; Will D. Alexander, Engr., 217 Johnston Bldg. See Wants Section—Bids Asked.

Tex., Raymondville—A. M. Kent, Dist. Judge, reported, interested in proposed irrigation district for Willacy County, plans increasing the old Union Irrigation Dist. from 100,000 to 250,000 acres; J. L. Corbin, Engr.

Electric Light and Power

Electric light and power work in connection with many LAND DEVELOPMENT operations involves the expenditure of large sums of money. See that classification for details.

Ark., Harrison—City, reported, considering bond election for erecting light and power plant. Address The Mayor.

Ark., West Memphis—Wilson Power & Light Co., R. E. Lee Wilson, Pres., Wilson, reported, erect power and ice plant with 40-ton capacity, cost \$100,000.

Fla., Collier City—S. G. Copeland, Engr., reported, construct \$50,000 power house.

Fla., Milton—City, reported, considering bid of Gulf Power Co., 40 S. Palafox St., Pensacola, for light and power plant.

Md., Salisbury—Samuel Insull, 72 West Adams St., Chicago, Ill., 165 Broadway, New York, reported, completed negotiations for purchase of National Public Service stock held by United Gas Improvement Co. and Day & Zimmerman, Inc., 1600 Walnut St., Philadelphia, Pa.; National Public Service properties will be operated by National Electric Power Co.

Miss., New Albany—Inland Utilities Co., 1218 Liberty Ave., Kansas City, Mo., reported, negotiating for water and light plant.

Mo., Aurora—City, reported, defeated \$60,000 bonds for acquiring electric light plant. Address The Mayor.

N. C., Charlotte—Duke Power Co., reported, soon offer \$40,000,000 bonds through Stone & Webster and Blodgett, Inc., New York, Drexel & Co., Philadelphia, and Guaranty Co., New York, First National Corp., Boston, Mass., and Estabrook & Co.; one half of issue will be in nature of first and refunding mortgage and will be purchased by Duke Endowment, a trust fund established in North and South Carolina; Duke superpower system extends through Piedmont region of North and South Carolina; plants have a capacity of \$49,905 h.p. and will be increased to 950,000 h.p.

N. C., Dillsboro—Col. Charles J. Harris, Dillsboro, and Sylva Electric Light Co., reported, planning power development, including dam on Tuckasee River, drilling of tunnel through Tunnell Mountains.

N. C., Glen Alpine—Burke Electric Utilities Co., capital \$100,000, incorporated; F. Jerome Wortman, H. L. Miller.

N. C., Kinston—City, reported, deferred opening of bids for electric light plant to Feb. 14. Address The Mayor.

N. C., Winston-Salem—Arthur Ross, Asheville, reported, interested in installation of white way system, Southern Pines, Pinehurst to Winston-Salem.

Okla., Bristow—See Water Works.

Okla., Tulsa—Public Service Co. of Oklahoma, reported, having plans prepared by A. M. Atkinson, Mid-Continent Bldg., for 5-story building southwest corner Sixth and Main Sts.; 80x140 ft.; 1 unit of extensive network of power stations will be constructed in basement; will probably let contract in Feb. or March.

S. C., Allendale—Edisto Public Service Corp., Denmark, reported, negotiating for municipal light and power plant.

Tenn., Chattanooga—Tennessee Electric Power Co., reported, expend \$5,000,000 during 1928 including improvements at Hale's Bar steam and hydro-electric plants, Ocoee river developments, etc.

Tex., Burnet—Texas Power and Light Co., Interurban Bldg., Dallas, reported, rebuild power lines; construct line from Burnet to Bertram.

Tex., Canadian—City, reported, purchased 240 h.p. unit for power plant. Address The Mayor.

Tex., Denton—City, W. N. Harris, City Engr., installing 350 h.p. Bruce Macbeth engine with generator, motor, voltage regulator, water stage recorder, cost \$25,000; Bruce Macbeth Engine Co., 2111 Centre St., N. W., Cleveland, Ohio; King Co., Chicago, Ill., 230 S. Clark St., and Graybar Electric Co., 400 S. Austin St., Dallas, will furnish equipment. 12-8

Tex., Goldwalthe—Texas-Louisiana Power Co., Fort Worth Club Bldg., Fort Worth, advises that plans and specifications for improvements to light and ice plant recently acquired have not progressed very far. 12-1

Tex., Lufkin—Texas Power & Light Co., Interstate Bldg., Dallas, reported, construct high tension line to Huntington, distance of 12 miles, also build line from Lufkin to Cushing.

Tex., Pecos—Texas-Louisiana Power Co., Fort Worth Bank Bldg., Fort Worth, reported, expend \$370,000 for power plant; install 1250 h.p. Nordsberg high-compression oil engine; will enlarge ice plant to 45-ton daily output, with storage capacity increased to 225 tons.

Va., Bluefield—See Roads, Streets, Paving.

West Virginia—H. M. Byllesby & Co., Inc., Chicago, First National Bank, New York, Lee, Higginson & Co., New York, The Union Trust Co. of Pittsburgh, Ladenburg, Thalmann & Co., Chase Securities Corp., Harris, Forbes & Co., and Hayden, Stone & Co., all New York, are offering \$60,000,000 5% secured gold bonds of Philadelphia Co., 435 Sixth Ave., Pittsburgh, Pa.; company organized under laws of Pennsylvania, controls through entire stock ownership, Duquesne Light Co., which does all electric light and power business in Pittsburgh, owns or controls gas distributing system in southwestern Pennsylvania and Northern West Virginia and will acquire an interest in Kentucky-West Virginia Gas Co. system; which system controls greater part of gas consumed in Pittsburgh; proceeds to be used for retirement of all present outstanding mortgage indebtedness, purchase of additional Duquesne Light Co. stock, acquisition of an interest in Kentucky-West Virginia Gas Co. and for other corporate purposes.

Foundry and Machine Plants

Mo., Pleasant Hill—Castings—Bell-Davis Machinery Manufacturing, Inc., capital \$50,000, chartered; John F. Bell, John W. Davis, Roscoe C. Summers.

Mo., St. Louis—Foundry Supplies—Reeder Manufacturing Co., capital \$50,000, incorporated; C. H. Reeder, 1026 Fairmount Ave., Benj. Richter, 3548 Delore St., A. A. Alexander.

Mo., St. Louis—West & Co., 1511 Walnut St., Philadelphia, Pa., and 36 Wall St., New York City, offering \$9,000,000 first mortgage bonds and debentures for York Ice Machinery Corp., Thomas Shipley, Pres.; proceeds of sale, together with 49,941 shares of preferred stock and 157,075 shares common stock, provide for acquisition of the York Manufacturing Company, its nine affiliated companies, the Arctic Ice Machine Co. and part of the cost of construction of new plant now being erected at York, Pa. 10-20

Gas and Oil Enterprises

Ark., Blytheville—City, Harry H. Brown, Mayor, reported, plans granting gas franchise.

Ark., El Dorado—Ouachita Natural Gas Co., 129 S. Grand St., Monroe, La., reported, acquired El Dorado Gas Co. and Central States Gas and Electric Co.; also acquired interest in Louisiana-Arkansas Pipe Line Co. 12-1

Ky., Lexington—Columbia Gas & Electric Corp., 61 Broadway, New York, reported, contracted to purchase on Dec. 30 common stock of Central Kentucky Natural Gas Co. 11-24

La., Abbeville—Belchle & Laskey Co., Inc., reported, granted gas franchise. 11-24

La., Lake Charles—Noble Oil Co., Inc., capital \$80,000, incorporated; H. T. McClain, 317 Iris St.; George M. King, 1605 Ryan St.

La., Shreveport—Richland Lands and Royalties, Inc., chartered; R. J. Coultas and W. T. Osborne, both Mattoon, Ill.; Byron A. Irwin, Ardis Bldg., Shreveport.

La., Shreveport—K. E. Merren, Pres., Shreveport-El Dorado Pipe Line Co., Commercial Bank Bldg., reported, improve refinery recently acquired; increase capacity to 10,000 bbls. crude oil daily. 12-8

La., Shreveport—Ray-Dawes Drilling Co., Inc., capital \$50,000, incorporated; Walter G. Ray, 828 E. College St., Wm. C. Woolf, 923 Commercial National Bank Bldg.

La., Winnfield—Belchle & Laskey, reported, construct natural gas line through city.

Miss., Laurel—F. S. Mordaunt, Union Indemnity Bldg., New Orleans, La., advises regarding gas plant: "Laurel franchise has been taken over by Francis R. Weller, Mills Bldg., Washington, D. C., Pres. and Ch. Engr. of Allied Utilities Corp., in conjunction with Philadelphia bankers; contract for entire building of plant went to Parker Russell Mining & Mfg. Co., 3300 Morganford Road, St. Louis, Mo., who will build entire plant and sublet considerable of equipment construction to Western Gas Construction Co., Fort Wayne, Ind.; company has been incorporated as Mississippi Gas & Coke Co., with nominal capital; Francis R. Weller will be president and F. S. Mordaunt V-P. 5-26

Miss., Tupelo—Amory Natural Gas Co., Chatham, Ont., Canada, reported, applied for natural gas franchise; will pipe gas distance of 32 miles.

Okla., Muskogee—Muskogee Natural Gas, Inc., organized; Frank DeMayo, 412 K. C. Life Bldg., Kansas City, Mo.; O. S. Howard, Muskogee; capital \$150,000; reported, construct 8-in. line from Muskogee to Keefeton field, distance of 12 miles.

Okla., Tulsa—Merger, reported, of Independent Oil and Gas Co., Kennedy Bldg., with Philmack Cox, Atlas Life Bldg. 12-8

S. C., Gaffney—Limestone Oil Co., capital \$10,000, incorporated; H. E. George, Henry C. Moore.

Tenn., Savannah—Dixie Oil Co., increased capital \$15,000 to \$25,000.

Texas—Southern Gas Utilities, 504 City National Bank Bldg., San Antonio, reported, construct natural gas distributing systems at San Marcos, Kyle, Buda and Manchaca; soon let contract.

Texas—The Texas Corp., 17 Battery Place, New York, reported, negotiating with Pure Oil Co., Wabash Ave. and Wacker Drive, Chicago, to take over portion of properties in West Texas, including 3100 acres in Winkler, 407 in Pecos County and 2000 in Crane and Upton counties.

Tex., Amarillo—Post-Dated Oil Co., capital

tal \$100,000, incorporated; J. C. Neudigate, Otto P. Jaeger.

Tex., Austin—Austin Gas Co., A. T. Knies, V.-P., reported, plans extension to distribution lines.

Tex., Beaumont—Southwestern Gas and Electric Co., Shreveport, La., reported, sold to Moody-Seagraves Co., Esperson Bldg., Houston, the Beaumont Gas Co.'s franchise.

Tex., Breckenridge—Operators Oil and Gas Co., capital \$10,000, incorporated; E. L. Proper, W. R. Yeager.

Tex., Brownwood—Amerada Petroleum Corp., reported, construct gasoline refinery; cost \$125,000.

Tex., Cameron—Lone Star Gas Co., 1915 Wood St., Dallas, reported, negotiating with city for gas franchise; will extend line from Temple via Rogers.

Tex., Dallas—Pardee Petroleum Co., capital \$40,000, incorporated; Harry Sigel, 2606 S. Boulevard, W. G. Liggett, 1303 Jackson St.

Tex., Houston—Carolina-Texas Oil Co., D. N. Chadwick and R. G. Grady, Wilmington, N. C., reported, plans additional development of natural gas resources.

Tex., Houston—Conklin Oil Co., capital \$10,000, incorporated; J. A. Conklin, H. J. Kilgore.

Tex., Houston—W. T. Carter Lumber and Building Co., 1201 Capitol St., owners and developers of Garden Villas, reported, let contract to Houston Gulf Gas Co.; to supply subdivision with natural gas.

Tex., Jacksboro—City, reported, considering granting gas franchise to T. G. Shaw Interests of Forth Worth.

Tex., Littlefield—Shade Oil Co., capital \$100,000, incorporated; J. H. Sims, J. W. Murphy.

Tex., Palestine—Dixie Gas & Fuel Co., Houston, reported, has franchise to pipe county for gas, oil and water.

Tex., San Antonio—Rosita Oil Corp., incorporated; J. K. Davis, Jr., City Natl. Bank Bldg., R. F. Schoolfield, 1126 N. Ashby St.

Tex., Silverton—West Texas Gas Co., Amarillo, reported, soon begin construction of gas pipe line.

Va., Cape Charles—Northampton Oil Co., capital \$25,000, incorporated; Joseph Restein, W. Herbert Hall.

Va., Hopewell—Old Dominion Gas Co., subsidiary of Pennsylvania Gas & Electric Co., 120 Broadway, New York, has franchise and acquired property for construction of plant, have obtained right of way, and will begin construction about March 25.

Va., Norfolk—Tidewater Oil Co., capital \$25,000, incorporated; W. M. Stroud, L. G. White, Park Ave.

West Virginia—Hamilton Gas Co., reported, consolidated natural properties in West Virginia and Kentucky; company has been organized under laws of Delaware; owns leases on about 62,520 acres gas lands, 41,880 acres in West Virginia and 20,640 acres in Kentucky, reported to finance through Taylor, Ewart & Co., Inc., 34 Pine St., New York, and associates.

Ice and Cold-Storage Plants

Ark., Harvard, mail Marion—R. E. Wilson of Wilson Power and Light Co., Osceola, reported, acquired the Railways Ice Co.; will raise and erect new plant on W. Memphis St.

La., Lake Charles—P. Olivier & Son, Inc., 114 Bilbo St., reported, have been awarded contract for erection addition to plant on N. Ryan St. of Gulf States Utilities Co., Beaumont, Texas, total cost improvement about \$80,000.

Mo., Willow Springs—Missouri Farmers' Assn., H. A. Cowden, Sec., Virginia Bldg., Columbia, Mo., reported, will erect 1-story cold storage and refrigerating plant, cost about \$40,000.

N. C., Statesville—Statesville Ice Co., capital \$100,000, incorporated; D. J. Craig, John A. Scott, H. L. Newbold; will erect new plant, brick and wood; work to start some time in January.

Tex., Edcouch—Central Power and Light Co., Frost Natl. Bank Bldg., San Antonio, W. P. Gilder, Ice Dept., advises following regarding erection ice plants: "We are doing the construction work ourselves at Edcouch, McAllen and Brownsville; all equipment has been purchased."

Tex., Pecos—See Electric Light and Power.

Tex., Temple—Southland Ice Co., C. S. Dawley, Pres., Santa Fe Bldg., Dallas, reported, acquired plants of Temple Ice and Refrigerating Co. at both Temple and Rogers; will continue existing business; com-

pany now operates plants in Dallas, Fort Worth, Sherman, McKinney, Grand Prairie.

Iron and Steel Plants

Tex., Corpus Christi—Eugene Ashe Electric Co., 1704 Dowling St., Houston, reported, has been awarded contract for electrical work on the Alamo Iron Works warehouse; J. B. Townsend, 804 McGowan St., Houston, Contr.

Land Development

Ark., Fort Smith—Kelley Trust Co., 13 N. Seventh St., reported, interested in establishment of cemetery on Grand Ave.

Fla., Arcadia—A. C. Williams, Inc., chartered; A. C. Williams, E. D. Treadwell.

Fla., Fort Lauderdale—East Bay Corp., incorporated; T. N. Parks, C. E. Schuldt.

Fla., Lake City—Reliance Lumber Co. incorporated; A. G. Paul, R. H. Paul.

Fla., Leesburg—Louis Investment Co., incorporated; H. L. Kerl, S. G. Walker.

Fla., Fort Myers—Southwest Holding Co., incorporated; J. W. Blanding, W. H. Cralle.

Fla., Miami—Fortdallo, Inc., chartered; Thelma Cain, Helen King, 1335 S. W. Second St.

Fla., Pensacola—Joseph Johnson Corp., incorporated; Joseph H. Johnson, W. Johnson.

Fla., St. Petersburg—G. & L. Holding Co. incorporated; George Lizotte, L. F. Lizotte.

Fla., Sarasota—Stiebitz Acres, Inc., chartered; Joseph Stiebitz, J. J. Cheron.

Fla., Sebring—Reclamation Committee of Chamber of Commerce, Burdette G. Lewis, Chmn., reported, recommended nine tracts of land ranging from 4600 acres up located near Monticello, Gainesville, Bunnell, Center Hill, Bartow, LaBelle and Fort Lauderdale as site for Government and colonization development project in Florida.

Fla., Tampa—Lucas-Trice Co., incorporated; R. W. Trice, 910 S. Newport Ave., T. E. Lucas, 206 E. Madison St.

Fla., Tampa—Oconee Plantation, Inc., chartered; Armory Mellen, 3002 S. Stovall St.; R. L. Hetchcock.

Fla., Tampa—Owners' Development Co., capital \$100,000, incorporated; W. L. McNevin, 505 Tampa St.; Elsa Leutscher.

Fla., Valparaiso—El Quistador Golf Club, George L. Dick, reported, interested in development of 18-hole golf course, hunting and fishing lodge and docks.

Fla., West Palm Beach—Everglades Muck Fertilizer Co., incorporated; James H. Pittman, Citizens Bank Bldg., James K. McVey, Corman Bldg.

Fla., Winter Haven—Orange Blossom Poultry Corp., incorporated; John A. Snively, W. H. Hamilton.

Fla., Winter Haven—Eloise Groves Corp., incorporated; Sara Summerlin, H. A. True-

man.

Ga., Atlanta—City and Fulton County, reported, interested in development of 36 acre park to be known as Peachtree Creek Memorial Park.

Ky., Lexington—Morton Realty Co., J. S. Morton, Pres., 135 N. Lime St., developing 25 acre subdivision; expend \$10,000. See Want Section—Building Material and Equipment.

Ky., Paducah—Perry G. Maxwell, Golf Archt., reported, will design 9 hole golf course; construction to begin in the spring.

La., Gretna—Gretna Realty Co., Inc., T. G. Nicholson, Pres., has 63 acres; will develop 20-acre homesite, construct shell roads, concrete sidewalks and curbs; expend \$15,000; J. S. Webb, C. E., New Orleans.

Miss., Hattiesburg—Merkel & Dever, W. Pine St., reported, developing 40-acre subdivision, McInnis Street Addition; landscaping begun; will construct 30-ft. streets, install sewers, city water and lights.

Tenn., Chattanooga—Rhea Springs Estates Co., 512 Tennessee Electric Power Bldg., capital \$150,000, incorporated; T. Pope Shepherd, Tennessee Electric Power Bldg., James W. Johnson, 418 Georgia Ave.

Tenn., Knoxville—Griffin Realty Co., 612 S. Gay St., capital \$100,000, incorporated; Jamie G. Copeland, H. S. Burnett.

Tenn., Knoxville—Continental Development Co., 216 Deaderick Bldg., capital \$20,000, incorporated; Bruce March, Sidney B. Goldman.

Tenn., Memphis—Memphis Cotton Exchange Realty Co. incorporated; J. C. Lutz, 1863 Peabody Ave.; S. B. Wilson, Cotton Exchange Bldg.

Tenn., Memphis—Dixie Development Co., Arcade Bldg., reported, develop 30 acre subdivision.

Tex., Dallas—City voted \$1,500,000 bonds

for parks, etc. See Financial News—Bond Issues Proposed.

Tex., Fort Worth—Lone Oak Land Co., capital \$100,000, incorporated; Amon G. Carter, Rivercrest; Lloyd H. McKee.

Tex., Galveston—Shearn Moody, reported, let contract soon for first unit of tourist camp, cost \$100,000; will include 66 apartments together with garages, filling station, etc.

Tex., Houston—R. L. Wright of Wright Loan and Securities Co., Bankers Mortgage Bldg., reported, acquired 96 acres on Humble Rd.

Tex., Houston—Southwestern Settlement & Development Co., affiliated company of Houston Oil Co., Petroleum Bldg., reported, interested in colonization; company owns 850,000 acres in 10 counties.

Tex., Houston—City Council, reported, granted park department \$15,000 for improvements to park system.

Tex., Houston—Seaboard Realty and Building Co., C. S. Wood, Pres., reported, acquired portion of Universal City; plans development of subdivision.

Tex., Houston—Houston Park Board, Herbert Godwin, Chmn., reported, petitioned City Council for \$15,900 appropriation for park development.

Tex., Laredo—Santiago Pappas, reported, develop San Bernardo Addition subdivision; install water, sewers, electric lights, gas, etc.; expend \$100,000.

Tex., Pleasanton—Charles D. Lovelace, 825 W. Agarita St., San Antonio, reported, interested in development of 20,000 acres of irrigable land in Pleasanton, Jourdanston, Leming and Poteet for colonization.

Tex., Rankin—W. E. Harrison, Box 55, developing tourist camp; will erect office, pump house and bath room.

Tex., San Antonio—Sunshine Pecan Orchard, Inc., capital \$136,000, incorporated; Hans H. Harke, W. C. Korff, 532 W. Mistletree St.

Tex., San Antonio—San Antonio Suburban Irrigated Farms, J. E. Jarratt, Pres., First Natl. Bank Bldg., has started work on colonizing 40,000 acres in Medina Valley under supervision of Col. A. Y. Walton, Gen. Mgr., and E. P. Arenson, Res. Mgr.

Tex., Temple—Stanton & Campbell, reported, developing Rose and Park Lawn Addition; install curbs and gutters, gravel streets; natural gas.

Va., Norfolk—Sherman Park Realty Co., capital \$25,000, incorporated; W. C. Norcum, 1820 High St., J. C. Norcum, Jr.

Va., Norfolk—Harrington Holding Corp., capital \$25,000, incorporated; L. B. Walker, 1411 Ashland Circle; H. B. Crosswell.

Va., Norfolk—Oak Grove Corp., capital \$50,000, incorporated; Edmund S. Ruffin, Jr., Citizens Bank Bldg.; Charles G. Hume, Bank of Commerce Bldg.

Va., Norfolk—W. G. Daub, New York, reported, acquired 110 acres with ocean frontage.

Va., Richmond—Southland Realty Corp., capital \$25,000, incorporated; J. T. Waddill, Times-Dispatch Bldg., L. Edwin Harvie, Mutual Bldg.

W. Va., Dunbar—Parsons Realty Co., reported, acquired 50 acres for development of subdivision.

Lumber Enterprises

Ark., Pine Bluff—C. D. Long, Moscow St., reported, acquired about 1500 acres timber land in Jefferson and Lincoln Counties.

Fla., Groveland—J. Ray Arnold Lumber Co., J. Ray Arnold, Pres., offering \$1,000,000 first mortgage 6½% sinking fund gold bonds through Townsend Scott & Son, 209 E. Fayette St., Baltimore, Md.; proceeds of issue will be to pay off bank loans which have been largely incurred in building the new mill and purchasing timber, by this financing the Company will restore its current working capital, which had become invested in fixed assets. The Company's principal mill, lumber yards, etc., occupies site of about 400 acres, with daily cutting capacity of about 225,000 ft.; also owns small mill at Laurel, with cutting capacity of about 60,000 ft. daily; logging department operates about 60 miles standard gauge railway, etc.; Company owns outright approximately 245,000,000 ft. cypress and long leaf yellow pine timber, controls through valuable timber purchase contracts on additional 205,000,000 ft., located upon approximately 175,000 acres timber lands.

La., Vidalia—Clayton Timber Co., capital \$100,000, incorporated; John Dale, Jr., Vidalia; M. B. Reed, Brookline, Mass.; Edward E. French, Winchester, Mass.

Tenn., Knoxville—Cash-Haul Lumber Co., capital \$50,000, incorporated; Eugene Galyon, 926 S. Ninth St., A. G. Fitch, 1417 E. Fifth Ave., S. G. Shepard.

Tex., Wallisville — Robertson-McDonald Lumber Co., Devers, Tex., reported, acquired 10,000 acres timber, will develop, build tram roads, etc.

Mining

N. C., Glendon—United Tale & Crayon Co., Inc., A. L. Luff, Pres., rebuilding burned plant, will install machinery. See Wants Section—Machinery and Supplies.

N. C., Oxford—Capital Granite Co., organized, Robert G. Lassiter, W. Trent Ragland, D. E. Saunders, reported, plans operating quarries at Blairs; capacity about 60 cars daily; install equipment; general office in Carolina Life Insurance Co. Bldg., Columbia.

Miscellaneous Construction

Fla., Jacksonville — Evergreen Cemetery Assn., Clark Bldg., reported, let contract to H. S. Baird, 3612 Oak St., for construction \$15,000 receiving vault, reinforced concrete.

Fla., Miami—Seawall, etc.—Dade County Ocean Front Protection Comm., C. A. Renshaw, Chmn., reported, has under consideration continuation of seawall and jetty system from Thirtieth St.

La., New Orleans—Board of Commrs., Port of New Orleans, Purchasing Dept., 500 Camp St., let contract to C. A. D. Bayley & Co., Interstate Bank Bldg., at \$210,299 for construction concrete wharf deck, shed foundations, firewalls, facade, ramps and paving at Poydras and Girod Street wharves; work to be completed within 190 days; all sub-contracts to be awarded by general contractor. 12-1

La., Point-a-la Hache—Levee—Board of State Engineers, 213 New Courthouse Bldg., New Orleans, La., reported, received low bid from John Vela, Olga, La., for levee work on Lucas Canal extending to Adolph's levee in Grand Prairie district, Plaquemines Parish. 12-8

Tex., Dallas—City voted \$150,000 bonds for construction of incinerators; E. A. Wood, City Engr. See Financial News—Bond Issues Proposed.

Tex., Galveston—Dike—Galveston County Commrs., reported, plans expending about \$700,000 for construction protective dike.

Tex., Galveston—Galveston Wharf Co., E. E. Gossrau, Gen. Mgr., 2324 B St., let contract to W. A. Kelso & Co., Inc., 2215½ C St., Galveston, for warehouse located south of Pier 9, wooden frame, sides covered with corrugated iron, roof of standard material, contain about 93,000 sq. ft. floor space, provide storage space for approximately 10,000 bales cotton; cost \$50,000. 12-15

Miscellaneous Enterprises

Ala., Mobile—Office Fixtures—Mobile Fixture and Equipment Co., capital \$25,000, incorporated; J. L. Bedsole, 300 S. Georgia Ave., M. P. Bedsole, 1323 Dauphin St., W. L. Reynolds.

Ark., Carlisle—Kraft Cheese Co., J. H. Kraft, Jr., V. Pres., 400 Rush St., Chicago, Ill., reported, plans establishing cheese factory cor. Front and Williams St.

Ark., Clarksville—Clarksville Hotel Co., capital \$50,000, incorporated; E. T. McConnell, Alice A. McConnell, Maude Poyner.

Ark., Fayetteville—White River Hatchery, Inc., capital \$11,200, chartered; F. M. Clayton, 600 E. Centennial Ave., J. C. Wyatt, Grand Ave., Rd., both Carthage, D. E. Phipps, Fayetteville.

Ark., Little Rock—Herman & McCain Construction Co., Reigler Bldg., reported, has permit for 2-story brick building at 423 E. Third St., cost about \$32,108; to be occupied by Little Rock Tent and Awning Co. 2-24

Fla., Clearwater—Clearwater Wholesale Grocery, Inc., chartered; R. L. Kirk, H. H. Baskin.

Fla., Daytona Beach—Olympia Confectionery Co., incorporated; Thomas Nouragas, R. E. Craft, 316 Cypress St.

Fla., Fort Lauderdale—Pease Battery and Electric Co., incorporated; C. D. Pease, L. M. Phillips.

Fla., Jacksonville—Jacksonville Interlocking Tile Co., incorporated; George M. Banes, A. R. Ingle.

Fla., Jacksonville—Suwannee River Creamery, Inc., chartered; O. L. Vordermark, E. S. Moore, 1930 St. Johns Ave.

Fla., Jacksonville—Drugs, etc.—Sano Manufacturing Co., capital \$10,000, incorporated; J. L. Clark, 50 E. Monroe St., Wm. Coleman, W. L. Coleman.

Fla., Jacksonville—Sign System, Inc., chartered; N. Lewis, J. H. Spence, P. M. Clarkson, Bisbee Bldg.; will manufacture opal glass letter signs.

Fla., Kelsey City—The Royal Palm Rubber Co., reported, plans plant addition; factory when completed will have daily capacity of 1000 tires and 1500 tubes; material for second unit all purchased; soon begin construction.

Fla., Miami—Engineering—Leach Construction Co., Inc., chartered; C. L. Locke, M. L. Tligen, E. Cruce.

Fla., Miami—Hotel Pershing Holding and Operating Co., incorporated; F. M. Brown, Pershing Hotel Bldg.; H. B. Graham, First Nat'l Bank Bldg.

Fla., Miami—Construction—Sunset Islands Co., incorporated; W. R. Lynch, 305 N. W. Fourth St.; C. E. Holcomb.

Fla., Miami—General Equipment Machinery Co., incorporated; I. E. Schilling, 1822 N. E. Second Ct.; Chris Dorn.

Fla., Miami Beach—Washington Storage Co., Inc., chartered; E. N. Mathews, L. F. Snedigar, Miami Bank & Trust Bldg., J. F. Mathews, Star Island.

Fla., Orlando—H. F. Wildman, Inc., capital \$10,000, chartered; Mrs. H. F. Wildman, 603 E. Lexington; R. H. Paul.

Fla., Pompano—Livestock—Warren Brothers Co., incorporated; L. S. Warren, J. L. Warren.

Fla., South Jacksonville—Southern Awning & Shade Co., incorporated; M. A. Rose, Ada B. Rose, Rosalind Arno.

Fla., Tampa—P. Warnage and associates, reported, interested in establishing weekly newspaper in Belmont Height district.

Fla., Tampa — Tampa Peninsular Trunk Factory, incorporated; Charles T. Wilson, Dabney W. King.

Fla., West Palm Beach—James D. Sturrock, Inc., chartered; James D. Sturrock, Egbert Beall, Da-Na-Ra Bldg.

Ga., Atlanta—Cole Book Co., 157 Whitehall St., reported, leased space in Witt Bldg.

Ga., Brunswick—Odum Turpentine Co., capital \$15,000, incorporated; C. P. Dusenbury, D. A. Sapp, Dixie Hatton.

Ga., Columbus—White Laundry, Inc., Jamie C. Ogletree, Sec., Railroad Ave., reported, soon begin construction laundry and dry cleaning plant on Wynnton Rd., fireproof; equipment purchased. 12-15

Ga., Valdosta — China-American Tobacco Co., J. O. W. Gravely, Pres., Rocky Mount, N. C., reported, contemplates plant extensions in 1928; China-American Tobacco Co., J. O. W. Gravely, Pres., advises: We have been considering plant extension at Valdosta; nothing definite has been decided.

Ky., Ashland — Gatlin Brothers Chemical Co., capital \$50,000, incorporated; Austin Gatlin, Earl Gatlin, John W. Harvey.

Ky., Glasgow—Glasgow Industrial Foundation, capital \$25,000, incorporated; F. N. Bradford, P. W. Holman, D. B. Hodges.

Ky., Hopkinsville—Gray-Von Allman, Sanitary Milk Co., 1143 Garvin Place, Louisville, reported, receive bids for construction first unit of proposed milk plant; cost of building and equipment about \$75,000; work to begin in near future. 10-20

Ky., Lexington — Fayette County Judge, Chester D. Adams, interested in proposed free ferry on Eastern division of Dixie Highway where it crosses Kentucky River between Lexington and Richmond.

Ky., Louisville — Louisville Dressed Beef Co., capital \$10,000, incorporated; R. B. Durham, E. A. Ethridge, 4771 S. Sixth St.; Jacob C. Koch.

Ky., Louisville—City Baking Co., incorporated; G. W. Boone, 2910 W. Walnut St.; Mae Combs, Roscoe Conkling.

Ky., Louisville—Harry Kasten, Pres., Kasten's Bakery, 228 S. Preston St., reported, acquired site corner Preston and St. Catherine St.; plans erecting new plant; install modern machinery.

Ky., Owenton—Sparta Stockyards Co., capital \$20,000, incorporated; W. J. Clarke, W. T. Forsee, W. C. Cull.

Ky., Sparta—Sparta Stockyards Co., capital \$20,000, incorporated; W. J. Clarke, W. T. Forsee, W. C. Cull.

La., Arabi—St. Bernard Realty & Amusement Co., W. E. Wainwright, Pres., 501 Canal Bank Bldg., New Orleans, will develop amusement park, etc.; construction by owners under supervision of Ernest F. Bohme, Designing and Construction Engr. 12-15

La., Baton Rouge—Merchandise—Peter Crifasi Produce Co., capital \$10,000, chartered; Peter Crifasi, 2101 North Boulevard, Frank Crifasi, Ralph Martrano.

Md., Baltimore—Razor Blades—Apex Manufacturing Co., 909 Calvert Bldg., acquired space in Pompeian-Romanza Bldg., 200 N. Eleventh St., install machinery for manufacture patented razor blade; equipment all purchased. 11-10

Md., Baltimore—Maryland Creamery Co., M. J. Abrams, 1726 E. Pratt St., which was reported, considering \$200,000 addition, advises, nothing to be done for long time to come.

Md., Baltimore—Druggists—Hynson, Westcott & Dunning, Charles and Chase Sts., let contract to the Tase-Norris Co., Inc., 903 Cathedral St., for erection of laboratory addition; Mottu & White, Archts., 527 N. Charles St. 11-17

Md., Baltimore—American Paving and Contracting Co., Montebello Ave. and Jenkins Lane, will erect asphalt plant cor. Montebello and Walpert Aves.

Miss., Biloxi—Dixie Machine Works, capital \$10,000, incorporated; John R. O'Donohue, F. J. Gautier.

Mo., Huntsville — Cooper-Westlake Dry Goods Co., capital \$10,000, incorporated; G. L. Cooper, Maud Cooper, W. I. Westlake.

Mo., Kansas City—Lisle Glass & Paint Co., 1930 Grand Ave., capital \$10,000, incorporated; J. C. Lisle, Clayton Bell, C. E. Lisle.

Mo., Kansas City—Incubators, etc.—Quisenberry Manufacturing Co., capital \$100,000, incorporated; T. E. Quisenberry, 4028 College Ave., Russell F. Palmer, both Kansas City; Albert E. Anderson, Grand View, Mo.

Mo., Kansas City—Eureka Food Products Co., capital \$51,000, incorporated; John W. Urwin, Geo. A. Lewis, 7339 Main St., Margaret D. Lewis.

Mo., Kansas City—Contracting—H. & W. Weatherstrip Co., incorporated; Alva L. Moon, 846 Sandusky Ave.; Nathan E. Tyrrell, 4609 Wabash St.; John W. Watts, 5835 Park Ave.

Mo., Kansas City—Romanelli Hardware Co., incorporated; H. E. Lunsford, Pioneer Trust Bldg.; Chas. F. Bomgardner, 5133 Tracy St.; Grace Lunsford.

Mo., Kansas City—Rubber Products, Inc., F. A. Langhead, Pres., Topeka, Kan., reported, acquired building at Nicholson and Montgail Ave.; will recondition for manufacture rubber flooring material; plans making product from used inner tubes.

Mo., Kansas City—Armour & Co., F. Edson White, Pres., Union Stock Yards, Chicago, Ill., wires following regarding burned storage plant with estimated loss of \$500,000: "We will not rebuild at Kansas City as plant was used for dry storage and was part of the beef house acquired in the consolidation of the Armour and Morris properties."

Mo., Kansas City—News Agencies—Kansas City News Co., capital \$25,000, incorporated; Roy K. Jones, Kansas City; Chas. H. Woods, Chicago, Ill.

Mo., St. Louis—International Amusement Corp., capital \$75,000, chartered; Leno Cohens, J. F. Roe, Jr., 4714 Garfield St., Lewis Bert Howard.

Mo., St. Louis—Motion Picture Films—Premier Picture Corp., capital \$10,000, chartered; Spyros P. Skouras, 6950 Pershing St.; Harry Koplar, 6304 Westminster St.; Claude W. McKean.

Mo., St. Louis—Shoes, etc.—Johnston-Moulten-Bartley, Inc., capital \$50,000, chartered; J. T. Johnston, 245 Union St.; W. W. Moulten, Douglas Bartley.

Mo., St. Louis—Missouri Radio Service Club, Inc., 4507 Delmar St., capital \$25,000, chartered; Harry J. Brown, Max L. Finkelstein, Harry H. Mayer.

Mo., St. Louis—Mississippi Valley Trust Co., Fourth and Pine Sts., offering \$800,000 5% serial gold notes for the National Candy Co., Vincent L. Price, Pres. The company was incorporated Sept. 8, 1902, under laws of State of New Jersey; operates 14 candy factories and distributing branches, located in St. Louis, Chicago, Kansas City, Louisville, Cincinnati, Minneapolis, St. Paul, Duluth, Detroit, Grand Rapids and Mt. Clemens, Mich.; annual output of candy about 60,000,000 lbs.; also has paper box factories in St. Louis and Louisville; in addition to new plant now under erection at cost of about \$1,000,000, the company owns in fee plant at Louisville and Mt. Clemens. 12-15

Mo., St. Louis—Merchandise—Tab Sales Co., incorporated; Chas. L. Pyne, Chas. P. Davidson, 4205 Botanical St., Frank C. Hayes.

Mo., St. Louis—Suburban Ice Cream Co., 7212 Olive St. Rd., capital \$20,000, chartered; Sam Scissors, 8828 Madge St., Brentwood; Maurice Levinson, R. No. 2, Clayton; Geo. F. Marvin, 6406 Chatham St., St. Louis.

N. C., Asheville—Asheboro Printing Co.,

capital \$15,000, chartered; L. B. Lambert, W. I. Burrow, C. L. Scott.

N. C., Asheville—Albert B. Peterson, reported, plans establishing plant to manufacture brooms, mops, etc., erect 1-story, 50x125-ft. factory building; move equipment from Western plant; Industrial Dept. of Chamber of Commerce interested in project.

N. C., Greenville—Walter Goldsmith Co. and W. R. Timmons, reported, acquired building of Lullwater Manufacturing Co.; probably convert into loft building.

N. C., West End—Sandhill Furniture Corp., capital \$50,000, chartered; F. W. Von Canon, Fred Von Canon, J. B. Von Canon.

N. C., Wilson—Wilson Stockyards, Inc., capital \$15,000, chartered; R. J. Crawley, Littleton; T. E. Brown, W. R. Beaman, both Wilson.

N. C., Winston-Salem—Penry-Alchison Printing Co., capital \$100,000, incorporated; W. M. Penry, H. F. Alchison, Eva R. Penry. 12-15

Okla., Lawton—Acme Laundry & Dry Cleaning Co., capital \$25,000, incorporated; John Shanklin, Walter G. Foster, W. V. Shanklin.

Okla., Miami—Ottawa Creameries, 108 S. Main St., T. O. McGhee, Mgr., will erect new plant in near future; no building plans at present. 12-15

Okla., Muskogee—Building Materials—A. C. Fischer, Pres., Serviced Products Corp., 53 W. Jackson Blvd., Chicago, Ill., reported, completed negotiations with Midland Valley railroad for use of old shop; expend about \$50,000 on alterations; establish branch plant to manufacture building materials.

Okla., Tulsa—National Games Corp., capital \$10,000, chartered; Chas. L. Yancey, Tulsa Trust Bldg.; Hazel B. Cox, H. M. Archer.

Okla., Tulsa—Southwestern Cut Stone Corp., temporary location 541 S. Victor Ave., D. V. Dorn, Pres., 1132 S. Wheeling Ave., have purchased steel and are now fabricating new plant, machine room 22x90-ft., cutting shed 50x108-ft., mill room 50x108-ft.; structural steel frame, corrugated iron sides and roof, earth floor; cost \$11,000; building by day work; install \$15,000 equipment including 2 diamond saws, one planer with circular and milling attachments, probably a bank of 4 open side planers, all equipment to be purchased in open market; completed plant to have daily capacity of 200 cu. ft. cut stone. 12-15

S. C., Camden—Wateree Dredging Co. incorporated; James P. Wilson, Hugh Pennell.

S. C., Darlington—W. C. Thomas Tobacco Co., Inc., Clay and 12th St., Lynchburg, Va., reported, acquired plant of former Hughes-Thomas Co., East Broad St., 3-story, 100x200-ft. brick building, establish branch; company has branches in Greenville and Kingston, N. C., Springfield, Tenn. and Blackstone, Va.

S. C., Sumter—Lawson Coffee Co., capital \$10,000, incorporated; F. O. Lawson, J. P. Lawson.

Tenn., Elizabethton—Wautaga Construction and Supply Co., capital \$18,000, incorporated; A. L. White, C. W. Gunnels, J. Frank Seller.

Tenn., Jackson—Bank Building Corp., capital \$128,000, chartered; J. T. McCutcheon, R. D. Conger, A. B. Foust.

Tenn., Memphis—American Cotton Fibre Co., Bodley Ave., increased capital \$60,000 to \$100,000.

Tenn., Memphis—DeSoto Paint Manufacturing Co., E. Railroad Ave., reported, plans enlarging factory, install modern equipment; probably change name to DeSoto Paint and Varnish Co.

Tenn., Nashville—Williams-Miller Office Equipment Co., 150 Fourth Ave., capital \$30,000, incorporated; Thos. A. Williams, 2307 Belmont Blvd., Fletcher L. Williams, E. A. Bergstrom, Battery Lane.

Tex., Alta Loma—Frank H. Thaman, Pres., Thaman Fig Assn., advises following in connection with erection of fig and food preserving plant: "Contract for plant and equipment have not been awarded and as our capital is invested in orchards will issue bonds to take care of factory and financing the production and marketing of crop; have bonded the association for \$100,000, of which we are offering \$50,000 of the bonds." 11-10

Tex., Amarillo—Durrett Building Co., capital \$10,000, incorporated; J. M. Durrett, 1902 Tyler St.; Alice S. Durrett, Charles Austin.

Tex., Amarillo—Amarillo Tent and Awning Co., capital \$30,000, incorporated; Henry S. Gooch, 2000 Monroe St.; Effie J. Gooch, S. Gooch.

Tex., Arlington—Pickles, etc.—Ding Dong Food Products Co., Ben H. Smith, Pres., reported, leased building on E. Division St.,

establish plant to manufacture pickles, cat-sup, etc.

Tex., Bay City—Lone Star Salt Water Co., capital \$25,000, incorporated; H. E. Treichler, Albert G. Wolf, H. M. Nelson.

Tex., Beaumont—King Stevedoring Co., capital \$10,000, incorporated; D. C. King, 2785 Grand St.; Mabel King, M. L. Lefter, 301 Gilbert Bldg.

Tex., Dallas—Street Bulletins, Inc., capital \$15,000, chartered; A. L. Slaughter, 703 N. Windemere St.; J. Hardy Neel, Fidelity Union Bldg.; Henry Yeager, Kirby Bldg.

Tex., Dallas—American Pharmaceutical Co., capital \$10,000, chartered; Mack A. Carlson, 2527 Ross St.; Douglas H. McCall, Louis R. McLain.

Tex., Dallas—Cedric Burgher Construction Co., capital \$20,000, incorporated; Cedric Burgher, 4200 Gilbert St.; Ballard Burgher, 4001 Turtle Creek; S. M. Leftwich.

Tex., Dallas—Candy—Metzler's, Dave A. Moses, Pres., reported, let contract to Miller Construction Co., Wilson Bldg., for erection store and manufacturing plant, cor. Hall St. and Oak Lawn Ave.; 100x100 ft., brick, stone trim; cost including equipment, about \$100,000; Roscoe P. Dewitt, Archt., Kirby Bldg.

Tex., Dallas—E. V. Campbell, 2403 McKinney St., reported, has permit for \$25,000 brick store and cleaning plant.

Tex., Fort Worth—Mrs. Baird's Bakery, R. W. Baird, Treas., Sixth and W. Terrell Ave., reported, acquired adjacent site; plans erecting 2-story and basement addition, 50x145 ft., brick, flat slab fireproof construction; install new equipment, double capacity of present plant.

Tex., Galveston—Fire-Fighting Equipment—City voted \$200,000 bonds for purchase fire boat; J. E. Pearce, Mayor. See Financial News—Bond Issue Proposed. 11-10

Tex., Galveston—Madden Furniture Co., Inc., capital \$100,000, chartered; W. B. Hall, Jules Jacobs, 2920 I St.; D. D. Madden.

Tex., Houston—O. and S. Florists, Inc., C. Kofahl, Jr., Pres., 1111 Travis St., reported, purchase 5 acre tract on Telephone Rd., establish nursery and floral plant.

Tex., Houston—Mayfair Publishing Co., capital \$50,000, organized by Allen V. Peden, J. T. Scott, Jr., First Natl. Bank, Joe J. Fox, 4520 Clay St.

Tex., LaPorte—The Triple XXX Root Beer Co., 807 McKinney St., Houston, reported, acquired site cor. Prospect Ave. and Fifth St.; establish retail station.

Tex., Lockhart—John T. Storey, W. B. Swearingen and associates interested in establishing creamery.

Tex., Madisonville—Herring-Phillips Hardware Co. increased capital, \$25,000 to \$40,000.

Tex., Mercedes—United Printing Co., H. M. Rouse, Sec., will erect 25x125-ft. building; brick, concrete floor, composition roof, cost \$25,000; install new presses and sundry equipment; R. Newell Waters, Archt., Weslaco.

Tex., Mission—Brook Hardware Co., capital \$30,000, incorporated; Geo. J. Brooks, M. H. Rankin, G. Brooks.

Tex., Presidio—Presidio Bridge Co., capital \$100,000, incorporated; C. L. Dittman, H. E. Dupuy, F. H. Scott.

Tex., Ranger—Merger of Ranger Steam Laundry, N. Austin St., and Gholson Hotel Laundry, reported; will conduct business at the Austin St. plant.

Tex., San Angelo—Mann Commission Co., capital \$10,000, incorporated; Clay Mann, J. W. A. Mann, Arthur Mann.

Tex., San Antonio—Bird Lime and Cement Co., capital \$10,000, incorporated; J. S. MacManus, 1610 Schley St.; Wm. A. Tarillion, 618 Mission St.; Mat M. Bird, 1922 Blanco Road.

Tex., Terrell—Lone Star Cheese Factory, Dallas, reported, contemplates establishing plant.

Tex., Waco—Rapid Battery Manufacturing Co., capital \$25,000, incorporated; J. F. Murrell, 2121 N. 18th St.; B. H. Green, 2901 N. 19th St.; C. Doyle, 1805 Avondale St.

Va., Bristol—Kraft Cheese Co., C. H. Kraft, V. Pres., 400 Rush St., Chicago, Ill., advises following regarding proposed establishment of plant or probable merger with Darter Butter Co.: "We are not building at Bristol, Va." 11-24

Va., Galax—Galax Mirror Co., capital \$25,000, incorporated; J. A. Messer, B. C. Vaughan, T. G. Vaughan.

Va., Roanoke—Mercantile—Harry Katz Co., Inc., capital \$25,000, chartered; J. H. Epstein, G. Z. Epstein, H. Hayman.

Va., Roanoke—Virginia Waste Paper Co.,

Inc., capital \$50,000, chartered; Wm. Slavin, Morris L. Masinter, American Natl. Bank Bldg.; Wm. H. Friedman. 12-15

Va., Roanoke—Drugs—Burton's, Inc., capital \$10,000, chartered; Charles G. Burton, F. K. Hodges, Lenora Burton.

Motor Bus Lines and Terminals

Ala., Florence—Bart A. Haynes, reported, has permit to operate passenger bus line between Florence and Waterloo.

Ala., Fort Payne—P. G. Marshall, reported, has permit to operate passenger bus line between Fort Payne and the Georgia-Alabama State line at point near Valley Head.

Ala., Mobile—R. W. and R. E. Schultz, reported, has permit to operate passenger and freight bus line between Mobile and Citronelle.

Ala., Montgomery—C. B. Bagwell, reported, has permit to operate passenger bus line between Montgomery and Union Springs.

Md., Rockville—Montgomery Bus Lines, Inc., Wm. E. Vielt, Mgr., Vielt Bldg., operates bus line, with terminals at Ninth and Pennsylvania Ave., Washington, D. C., and Rockville; special equipment includes destination signs, fare boxes, fire extinguishers; let contract to F. A. Kahn & Son for 40x60-ft. garage. See Want Section—Miscellaneous. 12-8

Mo., Charleston—Seaford Bus Line of Poplar Bluff, reported, has permit to operate motor bus line on Highway No. 55 between Charleston and Wolf Island.

Tex., Beaumont—Interurban Transportation Co., Inc., capital \$20,000, chartered; J. L. Mapes, 2357 Calder; W. E. Lea, M. W. Walker.

Motor Cars, Garages, Filling Stations

Ark., Fort Smith—Fort Smith Automotive Supply Co., 7 N. Second St., reported, will occupy new building on Rogers Ave.; 2-story, brick; J. H. Reddick, Contr.; George Schaffer, Owner.

D. C., Washington—William Oshinsky, 1340 14th St. N. W., and Charles Oshinsky, 924 H St. N. E., reported, have permit to erect 1-story brick automobile showroom, 1367 H St. N. E.; cost about \$11,000.

D. C., Washington—Sisters of Notre Dame, Michigan Ave. N. E., let contract to Chas. J. Cassidy Co., 1507 Eleventh St. N. W., for erection 1-story, 40x40-ft., private garage; Maginnis & Walsh, Archts., Statler Bldg., Boston, Mass. 12-8

Fla., Jacksonville—Mangels Motor Co. incorporated; Conrad Mangels, 3406 Richmond St.; John H. Donahue, 419 Avondale Ave.

Fla., Leesburg—Leesburg Automobile and Radio Co. incorporated; T. G. Futch, T. M. Sellar, Jeff Wood.

Fla., Miami—City Commrs. received low bid from Knight Construction Co., 3505 N. E. Second Ave., at \$41,090, for first unit municipal garage building at Twentieth and Tenth Sts.; also have completed plans for second unit, brick and steel, concrete floor, composition roof, cost about \$50,000; M. L. Hampton & Associates, Archts., 709 Congress Bldg. 11-24

Fla., Miami Beach—Flamingo Taxi Service, Inc., chartered; N. E. Utley, E. M. Turner, W. E. Montz.

Ga., Savannah—Sales Service Co., capital \$10,000, incorporated; J. D. Lane, Lewis Reinhertz, E. C. Blakeman.

Ky., Erlanger, mall Covington—Pay and Tote Tire Co. incorporated; Edwin O. Victor, Harry Holstein, Philip Taliaferro.

Ky., Lexington—Baker & Haggan, reported, have plans for erection filling station at 232 E. Short St.; brick; equip with latest facilities.

Ky., Louisville—Kentucky Auto Parts Co., capital \$10,000, incorporated; Allen P. Wagner, Benj. G. Bloch, Samuel B. Sollish.

Md., Baltimore—General Garage Manufacturing Co., C. W. Shafer, Mgr., 23 Norris St., erecting 50x75-ft. building on N. Aisquith St.; concrete block construction; receives bids soon on roofing, electrical and plumbing work; steel sash furnished by Dietrich Brothers, 220 Pleasant St.; concrete block by V. Patulzo, Bro. & Son, Eighth St. and Ashland Ave.; lumber by Baltimore Lumber Co., 1123 E. Baltimore St.

Md., Baltimore—Johnson & Dorr, Inc., American Bldg., has contract for alterations to building at 885-89 Greenmount Ave. for garage and service station; Joseph Kelly, Owner, 2801 Dillon St.; to be occupied by L. Y. McKim, 1712 Greenmount Ave.

Miss., Jackson—Mississippi Oldsmobile Co., capital \$15,000, incorporated; Walter R. Lee, 516 N. Jefferson St.; A. Y. Harper, Merchants Bank Bldg.

Miss., Kosciusko—Thompson & Ozier Tire and Supply Co., capital \$10,000, incorporated; C. M. Ozier, Mrs. J. S. Thompson.

Mo., Cape Girardeau—Automobile Accessories—Cape Battery & Supply Co. chartered; Leo H. Wagner, Cape Girardeau; Fay B. Bacon, L. G. Bacon, both Poplar Bluff.

Mo., Kansas City—Automotive Accessory Co., Inc., chartered; N. Spence, 3743 Washington St.; I. M. Mohan, R. Ravis.

Mo., Kansas City—United Motor Service, Inc., 2701 Warwick Blvd., reported, has plans for 2-story and basement automobile repair and service works, 100x125 ft.; cost about \$50,000; R. H. Sannerman, Archt., Lee Bldg.

Mo., St. Louis—W. J. Holbrook, Pres., Holbrook Blackwelder Real Estate Trust Co., 1010 Olive St., reported, interested in constructing garages with sufficient parking space to care for automobiles that park in streets between Twelfth Blvd. and Fourth St., Washington Blvd. and Market St.; plans include improving the roof of the garage, which will be on street level with landscaped lawn and sidewalks.

Mo., St. Louis—Felkel-Loesch Motor Sales Co., 4630 Manchester St., incorporated; J. B. Felkel, 5061 Minerva St.; H. A. Loesch, 7320 Dale St., Richmond Heights.

Okl., Oklahoma City—Packard Motor Co., 913 N. Broadway, reported, filed permit for \$80,000 building at Tenth St. and Robinson Ave.

Okl., Oklahoma City—Burwell & Mee Co., First Natl. Bank Bldg., reported, plans erecting \$70,000 store and garage, 2-story, fireproof, brick, stone and reinforced concrete; Charles Monnot, Archt., Magnolia Bldg.

Okl., Tulsa—Mott & Yates, reported, erect 1-story, 100x140-ft. garage and salesroom, steel, concrete and terra cotta; A. C. Fabry, 619 W. 12th St.

S. C., Georgetown—F. W. Wolfe Motor Co., Inc., chartered; W. Wolfe, M. W. Pyatt, Margaret A. Wolfe.

S. C., St. George—Gulf Refining Co., I. E. Mims, local agent, reported, acquired site at intersection of State Highway Nos. 30 and 27, erect filling station.

Tex., Alice—W. M. Hampton has contract for plumbing work for garage and filling station of Bennett & Nayer; R. Narija for electrical work; J. A. Smith, Contr. 12-8

Tex., Colorado—Colorado Motor Co., reported, erect \$25,000 salesroom and service building, 70x150 ft., brick and steel; contract awarded.

Tex., El Paso—Hinton Motors, Inc., capital \$50,000, chartered; Tate Hinton, 2727 Altura Blvd.; Charles A. Robertson, 1508 N. Stanton St.; Charles R. Loomis, First Natl. Bank Bldg.

Tex., Fort Worth—Texas Automobile Tension Screen Co., incorporated, chartered; R. Q. Stanford, W. B. Stanford, J. W. Akers, 340 Sylvania St.

Tex., Houston—R. D. Steel, Archt., First Natl. Bank Bldg., reported, awarded contract to J. B. Townsend, Post-Dispatch Bldg., for erection 1-story, 98x75-ft. garage at Bingham and Hickory Sts. for Universal Terminal Warehouse Co., wood and steel frame, galvanized iron; plumbing to Barber Plumbing Co., 1419 Paige St.; electrical work to A. T. Vick Co., Electric Bldg. 11-10

Tex., Houston—R. E. Houser, 817 Dallas St., reported, receive new bids for construction of auto laundry and lubricatorium to be erected at Main and Drew St., 1-story and basement, reinforced concrete, hollow tile and brick, cost about \$19,000; J. W. Northrop, Jr., Archts., West Bldg. 11-10

Tex., Houston—South End Service Station, 4101 Main St., D. D. Hutchinson and C. H. Lentech, Owners, reported, leased 50x100-ft. site cor. Louisiana and McGowan St., erect filling station 12-8

Tex., Marshall—J. C. Redmon, reported, let contract to Mack Sprinkles, Marshall, for erection brick gasoline and automobile service station on Main St.

Tex., San Antonio—Smallwood System, Inc., chartered; John P. Smallwood, Ed Cox and J. W. Brazelton.

Tex., Sherman—Sherman Motor Co., capital \$10,000, incorporated; Taylor Gault, Amanda B. Gault, S. H. Milburn.

Va., Hopewell—Yellow Cab Corp. of Hopewell, capital \$15,000, chartered; M. S. Stringfellow, Charlottesville, Va.; J. D. Peavy, Hopewell; J. G. Chandler, Williamsburg.

Va., Richmond—Texas Co., Second and Everett Sts., reported, plans erecting filling

stations at following sites: Meadow and Main St., Highland Park at Third St., Belmont and Ellwood Ave. and at intersection of Cutshaw Ave. and Boad St.; Spanish type, ornamental.

W. Va., Clarksburg—J. F. Garrett Auto Supply Co., incorporated; J. Frank Garrett, 334 Traders Ave.; R. R. Wilson, Union Bank Bldg.; L. M. Cozad.

W. Va., Martinsburg—S. W. Miller Garage Co., capital \$10,000, incorporated Martha M. Miller, P. A. Bennett, J. O. Henson.

Roads, Streets and Paving

In connection with LAND DEVELOPMENT large sums are expended for roads, streets, paving and sidewalks. Details will be found under that classification.

Proposed Construction

Ala., Bay Minette—State Highway Comm., Woolsey Fennell, Highway Director, Montgomery, plans improving roads in Baldwin County, including highway from Loxley to east end of 12-mi. Mobile Bay Bridge.

Ala., Birmingham—Jefferson County Board of Revenue receives bids Jan. 3 for 9 roads: 2½ mi. Thirty-fifth Ave. N., from city limits to Boyles, 23,000 sq. yd. paving; 5 mi. Hueytown Loop road, Bessemer to Hueytown lane, 54,000 sq. yd. paving; 6¼ mi. Mt. Pinson road, from end of present paving to Mt. Pinson, 63,000 sq. yd. paving; 1 mi. Green Springs road, city limits of Birmingham to Edgewood, 10,000 sq. yd.; ¾ mi. Smyer road, Montgomery Highway northeast, 7500 sq. yd. ½ mi. Huffman-Sadler's Gap road, Huffman east, 6000 sq. yd.; ½ mi. Huffman-Ketona road, Huffman west, 5500 sq. yd.; ¾ mi. Powderly-Wenonah road, Powderly south, 7500 sq. yd. paving, with grading and drainage; 15 mi. Bankhead Highway, from end of present paving near Adamsville north to county line, 145,000 sq. yd.; plans from C. J. Rogers, County Highway Engr.

Ala., Birmingham—City Comm., Eunice Hewes, Clk., authorized expending \$63,450, to pave 5 streets: Woodlawn road, from right of way of Birmingham mineral branch, to Louisville & Nashville R. R. to Forty-third Ave., North; Eighteenth St., Seventeenth Court North, to Village Creek Bridge; Sixty-third St., First Ave. North to First Ave., South; Sixteenth Alley, Boise to Cleveland Ave.; Nineteenth St., Sixteenth to Twentieth St.; A. J. Hawkins, City Engr.

Ala., Birmingham—City, Eunice Hewes, Clk., Jefferson County, C. J. Rogers, County Engr., receive bids Dec. 27 to pave Avenue V, Ensley, with asphaltic concrete, Warrior road to Forty-eighth; from Forty-eighth to South Park road; A. J. Hawkins, City Engr.

Ark., Little Rock—City, Horace Knowlton, Clk., plans resurfacing with asphalt 22 blocks, including Louisiana Ave. and Tenth, Eleventh, Twelfth, Thirteenth St., Main to Center.

Ark., Little Rock—Street Improvement Dist. No. 485, J. R. Donham, Commr., 5204 Lee Ave., plans paving 3 streets and grading, draining, curbing, guttering and paving 5 streets; Frank A. Pritchett, Engr., Reigler Bldg.

Ark., Stamps—City plans improvement district paving of streets on Highway No. 2, through city limits. Address City Clk. See Financial News—Bond Issues Proposed.

Florida—State Road Dept., Fons A. Hathaway, Chmn., Tallahassee, receives bids Jan. 10 for 3 roads: Collier County—9.4 mi. surface treatment, Road No. 27, from Palm Hammock to point west of Belle Meade; Leon County—5.31 mi. grading and drainage structures, Road No. 43, Miccosukee to Road No. 1; 11.1 mi. grading and drainage structures, Road No. 66, from Project No. 723 to Ochlocknee River; plans on file and from Div. Engrs.; J. L. Cresap, State Highway Engr.

Fla., Bartow—Polk County Commrs., J. D. Raulerson, Clk., plans letting contract in Jan. for 10 mi. paved highway from Mulberry south to junction of county with Manatee County.

Fla., DeFuniak Springs—City considering street paving, including paving the circle, Live Oak Ave., Eleventh and Ninth St. Address City Clk.

Fla., DeLand—Volusia County Commrs., Sam'l. D. Jordan, Clk., receive bids Jan. 5 for 3 mi. grad. ing, etc., Big Tree road, from intersection of Halifax Drainage Canal with Big Tree road, westerly and northerly; 20,000 cu. yd. earthwork; plans on file and from Main Engineering Co., Inc., 112 Baker St., Daytona Beach.

Fla., Jacksonville—City, M. W. Bishop, Sec., plans widening Main St.; will sell bonds.

Fla., Miami—City, H. E. Ross, Clk., receives bids Jan. 2 for sidewalks in S. dewalk Improvement Dist. Sk-90, 1,495 sq. yd.; plans from Ernest Cotton, Director of Public Service.

Fla., Pensacola—City, J. E. Frenkel, Clk., plans street paving, cost \$100,000. See Financial News—Bond Issues Proposed.

Fla., Pensacola—State Road Dept., Fons A. Hathaway, Chmn., Tallahassee, considering hard surfacing 10 mi. Old Spanish Trail between Pensacola and Milton, Escambia County.

Fla., Tampa—City Comm., W. Lesley Brown, Mgr., plans widening Tampa St. from Platt to Lafayette Street Bridges.

Ga., Atlanta—Fulton County Commrs. plan 8 mi. 70-ft. boulevard along Lee St. from Gordon St. West End to county limits at College Park; eliminate Whitehall St. grade crossing.

Ga., Cartersville—City, H. C. Nelson, Mayor, receives bids Dec. 22 for street improvement and storm drainage: 11,700 sq. yd. concrete, vibrolithic concrete, asphalt on concrete base, Finley Method Type "A," or Finley sheet asphalt, 4300 sq. yd. sidewalks, 6000 cu. yd. grading; plans from Thos. A. Ipshaw, Clk., and Knox T. Thomas, Engr., 611 McGlawn-Bowen Bldg., Atlanta.

Ga., Fort Valley—City plans street improvement. Address City Clk. See Financial News—Bond Issues Proposed.

La., Alexandria—Louisiana Highway Comm., Frank T. Payne, Chmn., Baton Rouge, receives bids Jan. 12 for 5.839 mi. gravel surfacing and shoulders on Holloway-Big Island Highway, Rapides Parish, from present gravel road, Holloway, to Deville P. O., near Big Island School; plans on file; Nicholls W. Bowden, State Highway Engr.

La., Bastrop—City plans paving about 14 mi. sidewalks. Address City Clk.

La., Baton Rouge—Louisiana Highway Comm., Frank T. Payne, Chmn., receives bids Jan. 10 and 11 for first units of Baton Rouge-New Orleans airline highway; Nicholls W. Bowden, Chmn.

La., Benton—Louisiana Highway Comm., Frank T. Payne, Chmn., Baton Rouge, receives bids Jan. 10 for 2 sections Bossier City-Coushatta Highway, Bossier Parish: 3.863 mi. from end of concrete pavement, Curtis, 6 mi. south of Bossier City, along west side of L. R. & N. Co. tracks, 18-ft. wide, 2-in. Warrenite bitulithic, bituminous concrete, modified Topeka type, or 2½-in. sheet asphalt wearing surfaces on concrete base, or reinforced concrete pavement; 5.360 mi. Bossier City-Coushatta Highway, from present gravel road south of end of concrete pavement, Curtis, to Elm Grove; plans on file; Nicholls W. Bowden, State Highway Engr.

La., Covington—Louisiana Highway Comm., Frank T. Payne, Chmn., Baton Rouge, receives bids Jan. 12 for 2.367 mi. Warrenite bitulithic, concrete, shell asphalt, sandstone rock asphalt, cold mixed limestone rock asphalt, or brick wearing surfaces on concrete base, paving in Covington: Sec. 1, from west end of bridge over Bogue Falaya River, along Boston, Asia St. and Twenty-first Ave., to intersection of Twenty-first Ave. and Harrison St., .707 mi., 33-ft. roadway with curb and gutter, .327 mi. 20 ft. wide; Sec. 2, from intersection of Boston and Columbia St., along Columbia St. to corporate limits, .322 mi. 33-ft. roadway, curb and gutter, 1.011 mi. 20 ft. wide; plans on file; Nicholls W. Bowden, State Highway Engr.

La., Donaldsonville—Louisiana Highway Comm., Frank T. Payne, Chmn., Baton Rouge, receives bids Jan. 11 for 14.41 mi. swamp section, in St. James and Ascension Parishes, from Sorrento, Ascension Parish, to St. James-St. John Parish line; 1,000,000 cu. yd. excavation, roadway will be built with 50-ft. crown, with three to one slope; top from 4 to 4½ ft. above swamp, coming to level with L. R. & N. R. R. embankment; Nicholls W. Bowden, State Highway Engr.

La., Gretna—Jefferson Parish Police Jury plans paving 1.575 mi. 20 and 32 ft. wide streets on State Route No. 2 with concrete base with bituminous concrete, Modified Topeka type, Warrenite bitulithic, sheet asphalt or concrete, from town limit to Salta Ave., from Sala Ave. to intersection with Mississippi River levee.

La., Hahnville—Louisiana Highway Comm., Frank T. Payne, Chmn., Baton Rouge, receives bids Jan. 10 for 4.56 mi. swamp section, St. Charles Parish, southward from point 1 mi. from Norco; 1,000,000 cu. yd. excavation, roadway will have 50-ft. crown, with three to one slope; top from 4 to 4½ ft. above swamp, coming to level with L. R.

& N. R. R. embankment; Nicholls W. Bowden, State Highway Engr.

La., Lake Charles—City, J. H. Funderberg, Commr. of Finance, receives bids soon to widen Bilbo St. between Kirby and Broad; resurface Ryan St.; E. L. Gorman, City Engr.

La., Monroe—See Bridges, Culverts, Viaducts.

La., Winnfield—Louisiana Highway Comm., Frank T. Payne, Chmn., Baton Rouge, receives bids Jan. 3 to furnish gravel and build 6.629 mi. Winnfield-Colfax Highway, from point on Atlanta-Montgomery Highway southwest of L. R. & N. crossing in Atlanta to Winn-Grant Parish line north of New Verda; plans on file; Nicholls W. Bowden, State Highway Engr. 12-20

La., Winnsboro—Louisiana Highway Comm., Frank T. Payne, Chmn., Baton Rouge, received low bid from W. C. Perry, 245 Main St., Baton Rouge, at \$116,040, for 17.5 mi. Winnsboro-Columbia Highway, Franklin Parish. 11-17

Md., Baltimore—Board of Awards receives bids Dec. 28 to grade, curb and pave with 9800 sq. yd. sheet asphalt on concrete base streets in Cont. No. 446; plans on file; Nathan L. Smith, Highways Engr.; C. F. Goob, Ch. Engr.; Wm. F. Broening, Mayor.

Md., Baltimore—City, Board of Estimates, approved plans to pave with sheet asphalt 5 streets, including Callaway, Fernhill, Mondawmin Ave.; estimated cost \$47,000; Nathan L. Smith, Highways Engr.; C. F. Goob, Ch. Engr.; Wm. F. Broening, Mayor.

Miss., Aberdeen—Monroe County Board of Supvrs., J. T. Gregory, Pres., plans completing graveling highways in county, including Amory and Gattman line.

Miss., Gulfport—City Commrs. plan receiving bids for 20 blocks street paving, approximate cost \$200,000.

Miss., Gulfport—Harrison County Board of Supvrs. receives bids Jan. to pave Second St., at Henderson Point, from Frost St. to Lovers Lane, then to Inn-by-the-Sea.

Miss., Greenwood—Leflore County Board of Supvrs. will let contract in Jan. for dirt work, including culverts, on road from Swift-town to new bridge at Silent Landing.

Miss., Kosciusko—City considering paving East Jefferson St., including main Durant-Ackerman Highway, through city limits, from city hall to corporate limits, joining Ethel Highway. Address City Clk.

Miss., Ripley—Tippah County Board of Supvrs. receives bids Jan. 3 for 2 roads: 7.017 mi. Separate Road Dist. No. 1, of Supvrs. Dist. No. 1, Ripley-North Road, from First Dist. line at Turkey Creek, to Tennessee State line, 57,763 cu. yd. excavation and borrow, 6070 lb. reinforcing steel; also for furnishing pipe, f. o. b. cars, Tipplersville, 9.769 mi. Separate Road Dist. No. 2, of Supvrs. Dist. No. 2, Ripley-North road, from North Corporation line, Ripley, to Dist. line, Turkey Creek, 29,957 lb. reinforcing steel; also for furnishing pipe, f. o. b. cars, Ripley, Murry Spur and Falkner; plans from Chancery Clk.

Mo., Maplewood—City, Chas. S. Humphreys, Mayor, receives bids Dec. 28 to pave James St., Sutton Ave. to Big Bend road; Oakview Terrace, Lyndover Place to North city limits; 6½-in. reinforced concrete, 24 ft. wide; integral curb; J. L. Mueller, City Engr. 12-15

Mo., Maplewood—City, Chas. S. Humphreys, Mayor, receives bids Jan. 11 for 6½-in. reinforced concrete paving integral curb on McCready Ave., Williams to Bruno Ave.; Jul. L. Mueller, City Engr. 12-15

North Carolina—State Highway Comm., Raleigh, received low bids for 14 roads totaling 112 mi. and bridge approaches and overpass, total cost \$1,545,770: Pitt County—Tar River Bridge approaches, Route 11, Hidson & Scruggs, Inc., \$11,550; Duplin County—18.36 mi. dirt, Kenansville to Onslow County line, Route 24, Warsaw Construction Co., \$89,581; Rutherford Brothers, Inc., \$31,191, structures; Robeson County—7.91 mi. hard surface, Lumberton to Baden County line, Route 211, Highway Engineering Construction Co., Selbyville, Del., \$123,300; 1.30 mi. dirt, Route 70, Fairmont to South Carolina line, Jamison Brothers, Inc., W. Broad St., High Point, \$81,65; Durham County—10.06 mi. dirt, Route 54, Nelson to Orange County line, C. A. Ragland, Louisburg, N. C., \$65,524; J. S. Bowers, Whiteville, \$57,349, structures; Lee County—6.43 mi. hard surface, Route 54, Chatham County line to Chapel Hill, Highway Engineering Construction Co., \$141,450; Orange County—2.61 mi. dirt, Route 54, Durham County line to Chapel Hill, J. K. Cecil, Lexington, \$20,584; Vance County—4.66 mi. hard surface, Route 24, Henderson to Granville County line, Highway Engineering Construction Co., \$141,450.

In Rockingham County—3.86 mi. dirt,

Leaksville to Virginia line, C. C. Stack, \$16,323; Iredell County—10.38 mi. hard surface, Route 10, Statesville to Catawba County line, Crowell Construction Co., \$228,909; Lincoln County—5.26 mi. dirt, Route 206, Gaston County line to Lincolnton, P. R. Hiffstetler, \$33,521; J. S. Bowers, \$57,349, structures; Union County—14.58 mi. dirt, Route 151, Monroe to Cabarrus County line, Lee J. Smith, 16½ Wall St., Asheville, \$75,902; Hobbs-Peabody Construction Co., 1902 Dilworth Rd., Charlotte, \$63,802, structures; Cleveland County—9.66 mi. hard surface, Route 18, Shelby to Fallston, Pennell & Horley, Inc., \$203,593; Polk County—overpass near Saluda, Route 191, Rutherford Construction Co., Rutherfordton, \$8369; Cherokee County—4.19 mi. dirt, Route 28, Ranger to Hot House, Lee J. Smith, \$30,611. 12-1

N. C., Charlotte—City, Robert L. Brown, Commr. of Public Works, plans letting contract after first of year to pave Trade St., College to McDowell; Tryon St., Twelfth to railroad.

N. C., Lumberton—State Highway Comm., Raleigh, may hard surface 8 mi. Highway No. 212 between Lumberton and Richardson, Robeson County; W. A. McGirt, Dist. Highway Commr.

Okla., Oklahoma City—City, E. M. Fry, Mgr., and Oklahoma County plan grading and improving road to Canadian Sewage Disposal Plant from Fourth St. and Eastern Ave. eastward.

Okla., Oklahoma City—City, E. M. Fry, Mgr., plans widening West Tenth St. 10 ft. on each side between Olle and Western Ave.; B. M. Hart, City Engr.

Okla., Shawnee—Pottawatomie County Commrs. receive bids Jan. 2 for 2 roads: 7.486 mi. Maud-Konaway road, 14-ft. wide, 3-in. gravel surface; 7 mi. 2-in. gravel top, Tecumseh-Earlshoro Highway from county seat.

Okla., Tulsa—Tulsa County Commrs. plan 4 mi. graveled road, from point east of Federal Drive to McFarlin Country Club; H. A. Parker, County Engr.

South Carolina—State Highway Dept., Ben M. Sawyer, Ch. Highway Commr., Columbia, received low bids for 13 roads, 13 bridges, underpass and 2 bridge approaches: Beaufort County—20.75 mi. paving, Route 28, between city limits of Beaufort and intersection of Routes 28 and 17, near Pocotaligo, Espey Paving & Contracting Co., 6 E. Bay St., Savannah, Ga., \$470,644; Florence County—16.157 mi. Route 17, from Effingham, through Cowards Scranton and Lake City, to Williamsburg County line, Langston Construction Co., 108 E. Central St., Orlando, Fla., \$383,397; Saluda and Lexington Counties—15.188 mi., Route 39, from Edgefield County line, through Ward, Ridge Springs and Monetta, to Batesburg, Robert G. Lassiter Co., Citizens Bank Bldg., Raleigh, \$369,114; Williamsburg County—12.766 mi. Route 17, from Florence County line through Cades to Kingstree, Concrete Construction Co., 730 Lady St., Columbia, \$304,121.

In Cherokee County—10.284 mi., Route 11, extending 5 mi. in each direction from Gaffney, Southern Paving Construction Co., Volunteer Life Bldg., Chattanooga, Tenn., \$278,819, for sheet asphalt on plain concrete base, Crowell Construction Co., Charlotte, N. C., \$252,055, concrete paving; Lexington County—12.887 mi., Route 3, from intersections of Routes 3 and 6, below Swausea, to intersection of Routes 2 and 3, near Dixiana, Concrete Construction Co., \$208,426, for asphaltic surface on concrete base; Ballenger Paving Co., Emacee Bldg., Greenville, \$177,057, plain 18-ft. concrete surfacing; Anderson County—7.89 mi., Route 15, between Belton limits and Anderson, Langston Construction Co., \$186,228; Marion County—8.028 mi., Route 17, between Mullins and Nickols, Southern Paving Construction Co., \$180,800; Jasper County—5.947 mi., Route 17, from Coosawhatchie toward Yemassee, Coaster Construction Co., Florence, \$144,142; Calhoun County—5.961 mi., Routes 2 and 45, from St. Matthews to Columbia, Ben H. Martin, Easley, \$143,900.

In Charleston County—94 mi. approaches to Ashley River Bridge, John's Island overhead bridge, Wallace Creek Bridge, Route 17, Simons-Mayrant Co., Chapel St., Charleston; Bamberg and Orangeburg Counties—3 treated timber bridges and reinforced concrete bridge, over Edisto River, Route 21, Gibson Construction Co., Waterboro, \$51,361; Newberry County—2 reinforced concrete bridges, over Columbia, Newberry and Laurens R. R., near Newberry and Jalapa, Route 2, Cherokee Construction Co., Gaffney; Dillon County—reinforced concrete bridge and widening present bridges, Route 9, between Dillon and Lake View, over Little Pee Dee River, Palmer Construction Co., Florence, \$18,207; Florence County—reinforced concrete bridge over Lake City, Simons-

Mayrant Co., \$20,014; Oconee County—concrete bridge over Chauga Creek, Route 18, between Westminster and Long Creek, C. Y. Thomason, Greenwood, \$17,010.

In Orangeburg County—reinforced concrete bridge over Goodby's swamp, Route 4, between Parler and intersection with old state road, Paul Gilmore, Spartanburg, \$6,694; Oconee County—treated timber bridge, Route 182, between Fairplay and Knox Bridge, Paul Gilmore; Lexington County—5.029 mi. grading, from Saluda River dam site, via Irmo, to Route 2, Smith & Bradfield, Macon, Ga., \$56,464; Richland County—2.504 mi. grading, Route 215, from point near Hinnant's store, to Fairfield County line, J. K. Milford, Greenwood, \$24,887; 1.6 mi. approaches, Route 19, to Southern Ry. underpass, near Salter's, W. R. Carson, Batesburg; Dillon County—3.648 mi., Route 9, from Dillon toward Lake View, Turner Construction Co., Florence, \$15,109.

S. C., Greenville—Greenville County considering about 6 mi. top-soil road from River View to North Carolina line, via Gap Creek, estimated cost \$10,000. Address County Commrs.

Tenn., Paris—Henry County, J. J. Thompson, Judge, plans hard surfacing principal roads in county, cost \$750,000. See Financial News—Bond Issues Proposed.

Texas—State Highway Comm., R. S. Sterling, Chmn., Austin, receives bids Jan. 17 for 2 roads and bridge: Austin County—9.16 mi. concrete, Highway No. 36, from Fort Bend County line northwest; Herbert Schroeter, County Engr.; Wharton County—9.831 mi. grading and small bridges, Highway No. 12, Wharton to Fort Bend County line; 2523-ft. concrete pile trestle bridge on Federal Aid Project No. 518 E and F; J. M. Nagle, Res. Engr.; R. A. Thompson, State Highway Engr. 12-15

Texas—State Highway Comm., R. S. Sterling, Chmn., Austin, receives bids probably Jan. 16 for 5 roads: Austin County—9.157 mi. concrete, Highway No. 36, from Fort Bend County line to Road Dist. No. 1, Herbert Schroeter, County Engr.; Jim Hogg County—3.402 mi. 10-in. caliche surface, 1-in. rock asphalt top, Highway No. 12-A, Hebronville to Duval County line; 1.30 mi. caliche and bituminous surfacing, Highway No. 12-A, through Hebronville; 5.49 mi. caliche and rock asphalt surfacing, Highway No. 12-A, Hebronville to Duval County line; E. J. Foster, County Engr.; Wharton County—4.505 mi. grading and bridges, Highway No. 12, Hungerford to Fort Bend County line; J. M. Nagle, Res. Engr.; R. A. Thompson, State Highway Engr.

Tex., Alvin—City plans street paving; cost \$30,000. Address City Clk. See Financial News—Bond Issues Proposed.

Tex., Arlington—City, W. G. Hiett, Mayor, receives bids soon for \$120,000 street paving; 6-in. reinforced concrete paving to replace macadam or rawhide paving on several business streets; pave 4 blocks on College Ave.; recently voted bonds.

Tex., Beeville—City plans 9 blocks paving on Adams St.; also 16-ft. roadway west, south and northwest to city limits. Address City Clk.

Tex., Brownsville—Cameron County, Oscar C. Dancy, Judge, plans letting contract for 2 roads: Military road from Brownsville to San Benito, along Rio Grande River; Boca Chica road, from Brownsville to Boca Chica; plans paving 2 roads: From Harlingen north to Willacy County line; road from Los Fresnos to Point Isabel.

Tex., Galveston—City, Jack E. Pearce, Mayor, received low bid from W. A. Kelso & Co., Inc., 2215½ C St., at \$2.22 per sq. yd. for 8773 yd. concrete paving; H. J. Hetkes, at 58 cents for 1949 ft. curbing.

Tex., Galveston—City, E. H. Ivey, Commr. of Streets plans receiving bids soon to pave Market St., Nineteenth to Boulevard; Charles A. Holt, City Engr. 12-1

Tex., Dallas—City plans street opening and widening streets, building lines and underpasses, cost \$5,500,000; street paving, city's share, \$3,000,000; E. A. Wood, City Engr. See Financial News—Bond Issues Proposed. 11-3

Tex., Houston—Harris County, H. L. Washburn, County Auditor, plans grading and constructing concrete culverts on Highway No. 19 through Lovelady, from point north of Lovelady to Houston-Trinity County line; Norman Atkinson, County Judge.

Tex., Huntsville—Huntsville Airline Highway Assn. organized; Judge P. H. Singletary, Pres., Huntsville; J. H. Penland, V.-P., Waco; Earl Hankamer, Sec.-Treas., Slur Lake; plan East Texas road, from Waco to Beaumont, entering Walker County from east over Highway No. 45 and leaving over Highway No. 75.

Tex., Nacogdoches—Nacogdoches County plans asphalt topping cardinal highways across county. Address County Commrs.

Tex., Raymondville—Willacy County plans road building in Lyford Road Dist. Address County Commrs. See Financial News—Bond Issues Proposed.

Tex., Texas City—City, E. L. Noble, Mayor, plans surfacing 8 or 10 blocks streets.

Tex., Tyler—City Comm. plans widening North Broadway from Line St. to Cotton Belt Railway.

Tex., Victoria—Victoria County, P. P. Putney, County Judge, plans rebuilding old Indianola trail; recently voted bonds. 12-1

Tex., Wharton—A. S. Johnson, State Highway Supvr., Austin, plans graveling Bay City road, from end of pavement on Milan St. to city limits.

Tex., Woodville—Tyler County plans completing Highway No. 106, from Chester to Woodville, cost \$133,000. Address County Commrs. See Financial News—Bond Issues Proposed.

Va., Bluefield—City Council considering widening main street and establishing white way on Morton and Wister St. through business section. Address City Clk.

W. Va., Parkersburg—City plans receiving bids in Jan. to pave 23 streets; J. V. Dunbar, City Engr.

W. Va., Point Pleasant—Mason County plans road building in Cologne Road Dist., cost \$35,000. Address County Commrs. See Financial News—Bond Issues Proposed.

Contracts Awarded

Fla., Inverness—Citrus County Commrs. let contract to C. A. Steed & Son, 370 S. Polinsettia St., West Palm Beach, at \$95,641 for 6.20 mi. State Road No. 36, Rutland road, from Inverness to Rutland Bridge over Withlacoochee River. 11-24

La., Natchitoches—Meyer & Greenwald Co., 130 S. Grand St., Monroe, and Flenniken Construction Co., Cahn Bldg., Shreveport, have contract to pave principal downtown streets, including Jefferson, St. Dennis, Cypress.

Miss., Blue Mountain—Town, A. N. Donnell, Clk., let contract to J. B. Fare, Ripley, to grade and gravel principal streets in town. 11-17

Miss., Gulfport—Harrison County Board of Supvrs. let contract to Southern Paving Construction Co., Volunteer Life Bldg., Chattanooga, Tenn., at \$12,369 for ½ mi. 5-in. concrete base, 2-in. Warrenite surface paving West Blvd., Pass Christian, from Church St. to end of concrete pavement.

Miss., Hattiesburg—Copiah County Board of Supvrs. let contract to George W. Russell for road maintenance in Dist. No. 2; D. F. Gates Constructing Co. for roads in Districts No. 4 and 5; total cost over \$200,000.

Mo., Joplin—City, Maud E. Fons, Clk., let contract to V. E. Koch, 702 N. Pearl St., at \$1.67 per sq. yd. for concrete roadway through industrial district east of Main St.; to Tri-State Construction Co. at 16 cents per sq. ft. for 4 concrete sidewalks; S. P. Ashcraft, City Engr.

Mo., Neosho—City, W. E. Smith, Clk., let contract to Taylor & Allison, Chanute, Kansas, for paving in various sections of city; Black & Veatch, Engrs., 700 Mutual Bldg., Kansas City. 12-15

Mo., Springfield—City, C. A. Dickerson, Clk., reported, let contract to H. Proserpi, 1220 N. Campbell St., for 4-ft. concrete sidewalk on Meredith Ave.

Okla., Oklahoma City—City, E. M. Fry, Mgr., let contract to H. M. House & Co., 1216 W. Main St., at \$89,728, for 20,400 sq. yd. concrete paving; B. M. Hart, Engr.

Okla., Oklahoma City—City, E. M. Fry, Mgr., let contract to M. A. Swatek Co., 519½ W. Main St., at \$2.40 per sq. yd. to widen East Tenth St., Broadway to Geary Ave.; at \$2.50 per sq. yd. to pave with concrete Twenty-first St., Fonthill to Prospect Ave.; B. M. Hart, City Engr.

Okla., Oklahoma City—Oklahoma County Commrs. let contract to Green-Boots Construction Co., 519½ W. Main St., at \$27,942, for 1 mi. test paving along Sixty-third eastward, from junction with highway to Edmond; 5 different types of paving materials; Ed. Shelton, Commr. 12-8

Tex., Mercedes—City let contract to J. H. Miller at \$50,000 for sidewalks. Address City Clk.

Tex., Montague—Fort Worth Sand and Gravel Co., 103½ E. Seventh St., has contract at about \$70,000 for gravel for road work around Bowie and Sunset.

Tex., Orange—R. J. Estep & Co., Praetorian Bldg., Dallas, reported, has contract to pave section of Old Spanish Trail, be-

tween end of pavement and Neches River Bridge.

Tex., San Angelo—L. E. Witham Co. has contract for first paying award of five-year development program; W. D. Tiner, City Engr.

Tex., San Antonio—City, I. Ewig, City Engr., let contract to Uvalde Rock Asphalt Co., Frost National Bank Bldg., to pave Ira Ave., Broadway to Alamo Ditch; Fred Fries, Clk. 12-1

W. Va., Kenova—City let contract to Gerchow & McGinnis at \$115,000 for 30-ft. concrete paving on Poplar St., 25 ft. wide on Chestnut and 20 ft. wide on 4 cross streets; R. W. Breece, Engr., 317 Ninth St., Huntington.

Sewer Construction

Sewer construction in LAND DEVELOPMENT projects involves the expenditure of large sums of money. Under that classification details of these improvements are reported.

Fla., Pensacola—City voted \$100,000 sewer bonds. See Financial News—Bond Issues Proposed.

Ga., Cartersville—City, H. C. Nelson, Mayor, receives bids Dec. 22 for storm drainage. See Want Section—Bids Asked.

Ky., Irvine—City, J. R. White, Clk., receives bids Jan. 24 for sanitary sewer system. See Want Section—Bids Asked.

La., Bastrop—City votes soon on bonds for sewer system. See Financial News—Bond Issues Proposed.

La., Vinton—City, reported, interested in installing sewer system. Address The Mayor.

Mo., Bowling Green—City, reported, let contract to Tom Johnson, Inc., 3745 Wayne St., Kansas City, for sewer system, cost \$33,516. 11-17

Mo., Maplewood—St. Louis Co., Board of Alderman, reported, let contract to Wm. A. Riley, 110 N. Seventh St., for Folk Ave. and Weaver Ave. sewer.

Mo., Springfield—City, reported, soon receive bids for sewers in District No. 48; C. A. Dickerson, Clk.

Mo., Springfield—City Council, reported, established sewer district, Sec. 8, Fort Ave. and Grand St.; Sam R. Fisher, City Engr., will prepare plans.

Mo., Springfield—City, C. A. Dickerson, Clk., reported, let contract to Ralph W. Langston, R. F. D. No. 1, for sewer in district No. 1.

N. C., Saluda—City, Louise O. Newman, Clk., advises city has just completed annex to water and sewer systems; will not need further additions for some years.

Okla., Bristow—See Water Works.

Okla., Ft. Cobb—See Water Works.

Okla., Mooreland—Town, plans constructing sewer system. See Water Works.

Okla., Oklahoma City—City, E. M. Fry, City Mgr., reported, let contract to Kohler Construction Co., Ponca City, for sanitary sewer.

Okla., Tulsa—Standard Paving Co., reported, has contract for storm sewer on Second and Fifth St. and Xanthus Ave.

Tex., Dallas—City voted sewer bonds. See Financial News—Bond Issues Proposed. 11-3

Tex., Houston—City let contract to Agar & Gentry, San Benito, for Buffalo Drive sanitary sewer; to Walker & Elder, P. O. Box 850, for Hill St. storm sewer.

Tex., Lampasas—See Water Works.

Tex., Laredo—City, reported, let contract to C. F. Teller for sewers. 12-8

W. Va., Huntington—Amos Trainor & Son, 1128 9th Ave., and T. E. Miller, 619 5th Ave., reported, low bidder for 2 additional sewer projects.

Telephone Systems

Ala., Mobile—C. W. Banks, reported, acquired the Midway Telephone Co., including all lines, poles and other equipment.

Arkansas—The Southwest Telephone Co., 305 Rector Bldg., Little Rock, offering \$1,500,000 first mortgage gold bonds 6% series "C" through Hambleton & Co. and J. A. W. Iglehart & Co., both Baltimore, Md., and Cammack & Co., Chicago, Ill. The company (Delaware Corp.) furnishes telephone service without competition (except in one community) to 92 towns and adjacent rural areas in Arkansas, Oklahoma and Texas. 12-1

La., New Orleans—Southern Bell Telephone and Telegraph Co., Ben S. Read, Pres., Atlanta, Ga., reported, probably expend about \$2,500,000 in Louisiana during 1928.

Okla., Enid—A. G. Mills, Oklahoma City,

reported, receive bids Jan. 16 for erection addition to building of Southwestern Bell Telephone Co., cost about \$35,000; heating, plumbing and wiring contracts will be awarded separately at same time. 12-1

Tenn., Chattanooga—Barge & Thompson Co., 136 Ellis St. N. E., Atlanta, Ga., general contractors for erection telephone building at Tenth and Lindsay St. for Southern Bell Telephone and Telegraph Co., main office, Atlanta, Ga., reported, receiving bids and sub-contracts for building; work will probably be under way by first of year; Brown Contracting Co., James Bldg., has contract for excavation. 10-6

W. Va., Ruth, mail Spring Hill—Spring Hill Telephone Co., incorporated; Ed. Newcomer, William Newcomer, W. E. Newcomer.

Textile Mills

Alabama—J. Henry Smith, of Flint & Co., Inc., 25 Broad St., and F. L. Walton, vice president of Parish & Co., 100 Worth St., both New York, interested in negotiations preliminary to merger of Southern textile mills into Cotton Yarn Mill Corp. (F. L. Walton lately incorrectly noted as vice-president of Parish & Co., 25 Broadway.)

Ala., Montgomery—Cloverdale Mfg. Co., reported, let contract to Batson-Cook Co., West Point, Ga., for 1-story mill addition; cost \$12,700.

Ga., Habersham—Habersham Mills, T. E. Stripling, reported, has plans by Park A. Dallis, Archt., Candler Bldg., Atlanta, for mill unit; brick walls, wood floors, built-up roof; construction by owners; day labor.

Ga., Lafayette—Peerless Woolen Mills, reported, expend \$40,000 for boiler house, 30x50 ft.; install heating plant; work by owners.

N. C., Concord—Hoover Hosiery Co., manufacturers of 42-gauge full fashioned hosiery, reported, installing equipment to double present capacity.

N. C., Elkin—Chatham Mfg. Co., let contract to T. C. Thompson & Bros., Charlotte, for 3-story, 112x160-ft. addition; Lockwood, Greene & Co., Inc., Engrs., Charlotte. 12-1

N. C., Lexington—S. O. Peebles, Archdale, N. C., reported, has contract for roofing and metal work for Lexington Silk Mill. 11-24

Tenn., Franklin—Sidney M. Edelstein & Co., Industrial Engr., Union, S. C., wires: "We have closed contract with Peerless Rayon Corp., for relocation of plant now located 181 Belmont Ave., Brooklyn, N. Y.; company manufacturers rayon knit cloth; will organize new corporation under laws of Tennessee with paid-in capital \$75,000; new building will be erected by holding company with floor space of 20,000 sq. ft.; new Wildman machines will be added to present Tompkins equipment."

Tenn., Lenoir City—Alspach Knitting Co., Orwigsburg, reported, has portion of James M. Hair Bldg. for underwear manufacturing plant. 10-20

Tex., Houston—Houston Textile Mills, reported, let contract to A. T. Vick Co., Electric Bldg., for electrical work on warehouse; Robt. J. Cummins, Conslt. Engr., Bankers Mortgage Bldg. 12-15

Va., Berkley—Wm. Sloane & Co., Inc., 1107 Louisa St., Norfolk, reported, establish Hampton Mills; manufacture outer apparel; will erect 2-story building; fireproof; 108x115 ft.; cost \$38,000 Nicholas & Linderman, Contrs.

Water Works

Details of water works improvements in connection with the many LAND DEVELOPMENT operations will be found under that classification.

Fla., Plant City—Board of City Commrs. receives bids Jan. 2 for electric control system. See Want Section—Bids Asked.

Kentucky—A. B. Leach & Co., Inc., New York; Toy, Gilson & Taylor, Inc., and A. L. Chambers & Co., Inc., are offering \$4,000,000 first lien 5½% gold bonds, Series A, of Keystone Water Works Corp., company a Delaware corporation, through subsidiary companies, will own and operate properties supplying water for domestic, industrial and municipal purposes in 27 cities and towns in Pennsylvania and 7 cities and towns in Kentucky and West Virginia; corporation is controlled, through ownership of its entire outstanding stock, by North American Water Works Corp., 11 Broadway, New York.

Md., Catonsville, Br. Baltimore—Board of Awards, Baltimore, receives bids Dec. 28 for substructure and superstructure Catonsville automatic pumping station. See Want Section—Bids Asked.

Mo., Bolivar—City votes Jan. 10 on \$40,000 water works bonds. See Financial News—Bond Issues Proposed.

Mo., St. Louis—Citizens' Bond Issue Supervisory Committee, reported, tentatively approved appropriation of \$650,000 for completion of city water works at Howard's Bend on Missouri River.

Mo., St. Louis—St. Louis County Water Co., reported, lay 10 miles of pipe for Kinloch Park.

N. C., Oteen—U. S. Veterans Hospital, Col. E. P. Odenhal, reported, construct \$100,000 water impounding dam and special filter and pipe system at Shope's Creek; survey completed by Government engineers.

N. C., Wilmington—City Comms., reported, let contract to McWane Cast Iron Pipe Co., 3700 11th Ave. N., Birmingham, Ala., for 5100 ft. of pre-cast pipe for extension of water mains in Forest Hills development; to Grinnel Co., Inc., 23 E. Fourth St., Charlotte, for hydrants and valves.

Okla., Ada—City, Lee Daggs, Clk., reported, receives bids in Jan. for \$425,000 flow line. 12-8

Okla., Bristow—City, reported, have plans made for water works, sewers and whiteway; John Gano, Engr.; \$160,800 available. 12-15

Okla., Ft. Cobb—City, reported, votes soon on bonds for water works and sewer system; C. A. Wood, Const. Engr., Medical Arts Bldg., Oklahoma City and Stillwater.

Okla., Mooreland—Town, voted \$65,000 bonds; will construct water works plant; install pumping plant for well, 6, 4 and 2-in. cast iron pipe; 50,000 gal. elevated tank; pumps, motors, automatic switch, etc.; also sewer system; date of opening bids not set; E. C. Jones & Co., Engrs., Enid. See Want Section—Machinery and Supplies.

Okla., Tahleah—H. H. Carrothers, Inc., 6803 E. 39th St., Kansas City, Mo., reported, has contract for concrete dam and flow line; Black & Veatch, Const. Engr., Mutual Bldg., Kansas City, Mo. 12-8

Okla., Tulsa—City, W. O. Anderson, Water Supt., reported, lay 16-in. water main across Arkansas River.

Tenn., Greeneville—City votes soon on water works bonds. See Financial News—Bond Issues Proposed.

Tenn., Memphis—City, reported, let contract to Vogt Machine Co., Tenth and Ormsby Sts., Louisville, Ky., for fire hydrants and Crane Co., Court and Fourth Sts., Memphis, for gate valves.

Tex., Dallas—City voted \$4,000,000 water works bonds. See Financial News—Bond Issues Proposed. 11-3

Tex., Dickinson—Dickinson Ice and Fuel Co., reported, begun construction of pipe line; cost \$12,000; will construct 50,000-gal. tank, 130-ft. high.

Tex., Florence—City votes Dec. 29 on water works bonds. See Financial News—Bond Issues Proposed.

Tex., Galveston—City, reported, received proposal from Hitchcock Ice & Cold Storage Co. for operating Alta Looma pumping plant by electricity.

Tex., Houston—City, Geo. E. Woods, Mgr., let contract to Southern Construction Co. for Polk Ave. water mains and for Liberty Rd. water mains.

Tex., LaGrange—City, H. W. Speckels, Mayor, receives bids Dec. 21 for water mains. See Want Section—Bids Asked.

Tex., Lampasas—City voted water and sewer bonds. See Financial News—Bond Issues Proposed.

Tex., Laredo—Central Power and Light Co., E. B. Nieswanger, V.-P., Frost Natl. Bank Bldg., San Antonio, reported, plans following expenditure for 1928: \$35,000 for improving and extending electric distribution system in residential districts; \$60,000 for underground cables and improvements in business district; \$32,750 for extension to water system; \$5000 for installing lead water services account paving; \$10,000 for additional street cars; \$15,000 for rotary converter for street railway operation; \$50,000 for rerouting and rebuilding street railway tracks; \$10,000 for extending railway tracks to park (athletic); \$45,000 for electric and water services to new customers and meters and transformers; \$250,000 for installing 3300-h.p. turbine and additional capacity at power plant.

Va., Arlington—Ch. Bureau of Yards and Docks, Washington, D. C., receives bids Jan. 4 for water circulating system at naval radio station. See Want Section—Bids Asked.

Woodworking Plants

Ga., Macon—Norris Brothers Co., D. L. Norris, Pres., 18 E. McBee Ave., Greenville, S. C., reported, plans erecting branch plant in the Tybee district; A. Amos, Supt. in charge

of erection, manufacture bobbins and shuttle blocks.

Mo., St. Louis—American Furniture Co., capital \$100,000, incorporated; Edward Lasky, 745 Leland St.; Joseph Lasky, 718 Limit St.; Harry Lasky.

Mo., St. Louis—Union Cooperage Co., Second and Penrose St., reported, has permit for addition to warehouse at 4211 N. Second St., 80x115 ft., brick, composition roof, steam heat; cost about \$35,000; Humes-Deal Co., Builder, 777 Arcade Bldg.; Trueblood & Graf, Archts., Chemical Bldg.

Tex., Cuero—Crates—J. C. Cartington, Sec. Chamber of Commerce, reported, interested in proposed establishment of crate factory.

Tex., Houston—J. B. Townsend, Post-Dispatch Bldg., reported, has contract for erection of 1 and 2 story warehouse and office for Steves Sash and Door Co., Rusk Ave. and Ennis St.; cost about \$10,000.

Va., Norfolk—Norfolk Millwork and Lumber Co., W. S. Cash, reported, leased mill plant and yard on Omohundro Ave.; installing additional equipment, plant formerly operated by Moore Brothers.

Va., Winchester—Furniture, etc.—Acorn Manufacturing Co., capital \$50,000, incorporated; H. H. Jennings, T. B. Patton, J. S. Haldeman. 11-24

FIRE DAMAGE

Ala., Brighton (Br. of Bessemer)—School building, J. A. Harper, principal; loss \$65,000.

Ala., Foley—John F. Daly's barns and out-houses, near Roscoe.

Ark., Arkadelphia—Warehouse of Arkadelphia Warehouse Co.; loss \$190,000.

Ark., Cotton Plant—Residences of Mrs. J. M. Motley, W. D. Davis and Paul Parrell; loss \$10,000.

Ark., Jonesboro—Unit of compress sheds of Jonesboro Compress; loss to building and machinery \$100,000.

Ark., Wilmore—Lake Gin, owned by W. B. de Yampert; loss \$13,500.

Fla., Jacksonville—Combination filling station and soft drink stand; property owned by Gilbert Nolan.

Ga., Columbus—Mrs. Sarah Goodwin's residence, 100 block 29½ St.

Ky., Auxler—School building, loss \$25,000. Address Floyd County Board of Education, Prestonsburg.

Ky., Louisville—Dwelling, Mocking Bird Valley near Pipe Line Ave., owned by Walter S. Clark, Pres., Southland Electrical Supply Co., 512 W. Main St.; loss \$10,000.

Ky., Louisville—Jas. Pontrich's residence, 18th St. Rd. near St. Helens; loss \$9000.

Ky., Newport—George Keller Hay and Grain Elevator Co.'s grain elevator; loss \$200,000.

La., Bunkie—Dwelling, Shirley Plantation, near Bunkie, owned by Mrs. M. C. Bubenzer estate; loss \$12,000 to \$15,000.

La., Hammond—Mrs. M. L. Daniel's residence; building owned by Hammond Lumber Co.

La., Mamou—The O. L. Fusilier Rice Mill and Warehouse, loss \$50,000.

La., Mansfield—Louisiana Public Utilities Co.'s ice plant in South Mansfield; loss \$100,000.

La., Plain Dealing—Allie Taylor's residence near Plain Dealing.

La., Shreveport—Cedar Grove school building; loss \$50,000; address School Board.

Md., Annapolis—Emergency Hospital; loss \$40,000.

Mis., Carrollton—J. R. Bingham's residence, "Cedar Canon"; loss \$50,000.

Miss., Clara—Boys' dormitory of Wayne County Agricultural High School; loss \$10,000.

Miss., Gulfport—Chas. T. Schmidt's residence near DeBuys; loss \$8000 to \$12,000; Colonial Hotel, loss \$12,000 to \$20,000. Address The Prop.

Miss., Gulfport—Colonial Hotel roof and upper floor; loss \$25,000.

Miss., Magnolia—Mrs. Ellen H. Weathersby's residence; loss \$10,000.

Miss., Poplarville—Poplarville Hospital, Dr. Robt. Stewart, Owner.

Mo., Joplin—Boyd-Pate Grain Co.'s elevator and mixed feed plant; loss \$75,000.

Mo., Kansas City—Municipal water works, buildings and machinery at north end of tunnel under Missouri River; loss \$45,000.

Mo., Sikeston—Sikeston Gin Co.'s plant; loss \$25,000.

Mo., Sikeston—Sikeston Gin Co.'s plant; loss \$25,000.

Mo., Wellston, St. Louis—Empire Bldg., 6128 Easton Ave.; loss \$20,000 to \$25,000.

N. C., Greensboro—Old passenger station of Southern Railway, B. Herman, Ch. Engr., Washington, D. C.

Okla., Gabriel—Robt. Young's residence, Crittenden township.

Okla., Muskogee—Stable No. 2 at Oklahoma Free State Fair Grounds.

Okla., Newkirk—Grade and High School buildings and damaged gymnasium at Bryan school; W. R. Clift, Supt., Kay County Board of Education.

Okla., Shawnee—Carnegie Library; loss \$75,000; Mrs. E. W. Funk, Librarian.

S. C., Abbeville—Rosenberg Mercantile Co. warehouses.

S. C., Camden—Wateree Mill Baptist Church; loss \$20,000; Rev. Wm. H. Willingham, Pastor.

S. C., Rock Hill—Gib H. Greene's residence on Johnston St.

S. C., Sumter—O. L. Williams Veneer Co.'s storage warehouse.

Tenn., Lebanon—Cedar oil distillery and boiler room of Gulf Red Cedar Co.

Tenn., Lewisburg—Marshall County courthouse; loss \$50,000. Address County Comms.

Tex., Austin—Rt. Rev. Bishop G. T. Kinsolving's residence.

Tex., Dallas—Consolidated Wafer Co.'s plant at Harwood St. and Santa Fe Ave.; loss \$100,000.

Tex., Dickens—Peoples Gin; loss \$30,000.

Tex., Fort Worth—55,000 bbl. tank of White Eagle Oil and Refining Co., Fort Worth National Bank Bldg.; loss \$75,000.

Tex., Jacksboro—First Baptist Church. Address The Pastor.

Tex., Lampasas—Mrs. J. E. Vernor's residence; loss \$10,000.

Tex., Mauriceville—Baptist Church; Rev. J. L. Sargent, Pastor, Doweyville.

Tex., Taylor—A. Rosenberg Mercantile Store, B. B. Crowder Jewelry Co., H. H. Sams Drug Store, F. W. Woolworth Novelty Store and C. O. Dallet Drug Co.; loss \$125,000.

Tex., Wichita Falls—Building occupied by Ruby-Howard Battery Co. and Gross Tire Service, Eighth and Burnett St.

Va., Norfolk—Imperial Apartments at 411 E. Freemason St., W. L. Seddon, owner; loss \$18,000.

Va., Norfolk—Belvedere Apartment building at 911 Westover Ave., owned by estate of Charles H. East; loss \$15,000.

Va., Radford—E. M. Rupe's store in West ward; loss \$50,000.

W. Va., Weston—Frances Foster's apartment house and grocery store; Albert Bailey's store and dwelling; loss \$25,000.

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal

Fla., Palatka—Lodge No. 1232, B. P. O. E., erect \$25,000 building, S. Third St.; 2 stories, 100x45 ft.

Ky., Covington—Bishop Carrel Council, Knights of Columbus, John Brinker, Chmn., Bldg. Comm., having plans prepared by Thos. J. Collopy for \$100,000 to \$125,000 building.

N. C., Asheville—Central Labor Union, H.

C. Caldwell, Pres., having plans revised for Labor Temple, Patton Ave.; cost \$50,000, brick and hollow tile; T. E. Davis, Archt., Temple Court. 2-24

N. C., Greensboro—Greensboro Masonic Temple Co., Inc., J. R. McClamroch, Pres., 122 W. Smith St., receives bids Jan. 3 for Grecian type limestone temple, W. Market St.; cost \$200,000, 3 stories and basement, 60x140 ft. 8-4

Okla., Hominy—Independent Order of Odd Fellows plan 2-story, 35x140 ft., brick and reinforced concrete lodge hall.

Okla., Snyder—Lodge No. 216, A. F. & A. M., erect \$20,000 brick and frame temple; 2 stories, 50x140 ft., wood floors, concrete foundation, built-up roof; Clay Riggins, Archt., Anadarko; preliminary plans completed.

Tenn., Chattanooga—Central Y. M. C. A., Alex Guerry, Gen. Mgr., having plans prepared by R. H. Hunt & Co., James Bldg., for \$300,000, 3-story and basement, reinforced concrete, brick building; built-up roof, steam heat, 20x60 ft. swimming pool, 1000 lockers, gymnasium 45x75 ft., stage 15x20 ft. 4-7

Tex., Eastland—Benevolent Protective Order of Elks remodel brick building for lodge quarters.

Tex., Rankin—Ancient Free and Accepted Masons, W. H. Holcomb, member, plans building; probably 2 stories, 25x80 ft.

Tex., Raymondville—Meuse-Argonne Post, American Legion, start work early in 1928 on \$10,000 clubhouse; mission type, 2 stories, tile and stucco; Geo. Cummins, Archt. 5-26

Tex., Vernon—Independent Order of Odd Fellows plans building.

Bank and Office

Ala., Birmingham—Protective Life Insurance Co., S. F. Clabaugh, Pres., 2112 First Ave., purchased 3-story and double basement building of Birmingham Ledger, First Ave. North and 21st St.; use foundation and steel frame in conjunction with erection of \$750,000 14-story office building; American architecture, steel and terra cotta, verde antique copper roof, windows all steel, with metal sliding sash, corridors to have marble floors and wainscoting; water tank, elevator pent house and machinery room under pitched roof; Warren, Knight & Davis, Archts., Empire Bldg.

Ark., Carlisle—Dairyman Bank, A. B. Banks, member, plans 1-story brick and stone bank building.

Ga., Atlanta—Rhodes Haverly Co. receives bids Dec. 27 for office building, Peachtree, James and Forsyth Sts.; rein. concrete, brick and terra cotta, 3 stories and basement, concrete floors, built-up roof; Pringle & Smith, Archts., Norris Bldg. 12-8

Ky., Louisville—Bankers' Trust Co., 427 W. Jefferson St., Hugh B. Flece, Pres., purchased bank building, Fifth and Market Sts.; remodel for quarters; work probably start in Jan., 1929.

La., Monroe—S. D. Hunter, Commercial Bank Bldg., Shreveport, erect \$700,000 office building, St. Johns and Woods Sts., to be occupied by Ouachita Natural Gas Co. and other gas companies; probably 5 or 7 stories; drawing plans.

La., New Orleans—Norman Mayer & Co., receives bids Dec. 28 for alterations and additions to 3-story brick building, 818-24 Union St.; separate bids for vault doors, elevator, wiring, lighting fixtures and sprinkler system; tile work, marble base, masonry, steel and wood sash, steel and iron work; waterproofing, etc.; Emile Weil, Inc., Archts., Whitney Bank Bldg.; following contractors estimating: Chas. Gibert, Canal Bank Bldg.; J. A. Petty & Sons, Inc., Godchaux Bldg.; R. P. Farnsworth & Co., Maritime Bldg.; Gervais F. Favrot, Louisiana Bldg.; J. A. Haase Jr., 916 Union St.; A. Garrett, Maritime Bldg.; Thos. H. Brockman, Hibernia Bank Bldg.; Reimann Construction Co., Maritime Bldg.; Geary-Oakes Co., Q. & C. Bldg., Babin's Sons, Marine Bank Bldg.

Tenn., Chattanooga—American Trust and Banking Co., E. Y. Chapin, Pres., receives bids Dec. 27 (extended date) for \$500,000 bank building; 60x153 ft., 55 ft. high, washed air ventilating system, sound-deadening wall treatment; K. M. Vitzthum & Co., 307 N. Michigan Blvd., Chicago, Ill., and Bearden & Crutchfield, First Natl. Bank Bldg., Chattanooga, Asso. Archts.; following contractors estimating: A. F. Hahn Co., Chamberlain Bldg., Chattanooga; Angle-Blackford Co., Amer. Exchange Bank Bldg., Greensboro, N. C.; Ralph Sollitt & Son, 228 N. LaSalle St.; Duffy Noonan Construction Co., 176 W. Adams St.; McLemore Construction Co., 307 N. Michigan Ave., all Chicago. 12-8

Tenn., Knoxville—C. B. Atkin, care C. B. Atkin Realty Co., erect 9 office floors over Tennessee Theater under construction as addition to 10-story Burwell Bldg.; 39-ft. front, 81 offices; cost about \$250,000; A. E. Gredig, Archt., Mercantile Bldg., Knoxville; Graven & Mayger, Consult. Archts., 180 N. Michigan Ave., Chicago, Ill.; Geo. A. Fuller Co., Fuller Bldg., New York, probable contractor. 7-1

Tex., Pampa—H. L. Griswold, incorporator of Concho Realty Co., San Angelo, having

plans prepared by Korn & Morgan, Asso. Archts., San Angelo Natl. Bank Bldg., San Angelo, for \$300,000, 10-story, 50x100-ft. building. See Want Section—Building Material and Equipment.

Tex., San Angelo—J. M. Shannon, Vice-Pres., Guaranty State Bank, erect building for quarters for bank and for Western Reserve Life Insurance Co.

Tex., San Angelo—H. L. Griswold, incorporator of Concho Realty Co., having plans prepared by Korn & Morgan, Asso. Archts., San Angelo Natl. Bank Bldg., for \$320,000, 12-story, reinforced concrete and brick office concrete foundation, Barrett roof. See Want Section—Bldg. Material and Equipment. 12-16

Tex., Waco—Medical Arts Development Co., having plans prepared by J. N. McCammon, Inc., 404 Construction Industries Bldg., Dallas, for \$400,000, 11-story, 60x75-ft., brick, stone, steel and reinforced concrete fireproof Medical Arts Bldg.; 2-story garage, 60x90 ft.; plans ready about Jan. 30. 11-17

Churches

Ala., Birmingham—Springdale Baptist Church, Rev. J. L. Aders, Pastor, start work about Jan. 1 on building; plans by Archt. Dept., Sunday School Board of Southern Baptist Convention, Nashville, Tenn.

Ark., Atkins—Baptist Church, Mrs. Vivian Mize, Chmn., Bldg. Comm., plans 1-story brick building, Atkins Lake.

Ark., Jonesboro—First Methodist Church, Chas. Stuck, member, Organ Comm., install \$15,000 pipe organ.

Fla., Sarasota—Hebrew Congregation, Phil Levy, Chmn., Finance Comm., plans synagogue.

Fla., Tampa—Bayshore Baptist Church, Rev. Geo. Hyman, Pastor, soon let contract for \$160,000 building, Dekle and Howard Aves.; brick and tile, concrete and wood floors, slate roof, steam heat, \$10,000 pipe organ; furnishings, equipment, etc., \$10,000; B. C. Bonfoey, Archt., 312½ Twigg St. 7-21

Ga., Brunswick—First Methodist Church probably have plans ready by Jan. 1 for brick building; wood floors, composition roof, steam heat; Walter P. Marshall, Archt., Realty Bldg., Savannah. 10-27

Ga., Falkston—First Baptist Church, Rev. J. D. Poindexter, Pastor, erect brick addition; wood floors, composition roof.

Ga., Savannah—Ascension Lutheran Church has low bid for Sunday school building and elevator shaft; cost \$32,000; Levy & Clarke, Archts., Blum Bldg. 11-10

La., Baton Rouge—First Christian Church plans to erect building. Address The Pastor.

La., Lake Charles—Broad Street M. E. Church, Dr. T. H. Watkins, Pastor, receives bids Jan. 5 for rein. concrete, brick and stone trim building; 3 stories, rein. concrete foundation, marble and tile work, separate bids for steam heating, plumbing, electric fixtures and hardware; alternate bids on limestone in place of cast stone; Asmus, Clark & McCook, Archts., Frank Bldg., Lake Charles, and Nashville Tr. Bldg., Nashville, Tenn. 12-15

Md., Baltimore—Grace M. E. Church and Roland Park M. E. Church combined and selected I. Manning Parsons, 39 Hopkins Pl., as chairman of bldg. comm. to erect \$400,000 church adjoining present Roland Park Church; select architect in few weeks. 10-6

Miss., Meridian—Fifth Street Methodist Church plans building. Address The Pastor.

Miss., Okolona—M. E. Church South, J. C. Crabtree, Chmn., Bldg. Comm., plans Sunday school building; also provide private kitchen and dining room.

Mo., St. Louis—Bethany E. L. Church, care Adolph Behnke, erect \$200,000 church and gymnasium, Clay and Natural Bridge Rds.; brick and steel, 1 story and 1 story and basement, 110x70 ft. and 100x66 ft., concrete foundations, maple floors, built-up composition roof, warm air heat; Corbuser, Lenski & Foster, Archts., Keith Bldg., Cleveland, O.; L. J. Graham, Supvr. Archt., 4885 Natural Bridge Rd.

Mo., Springfield—South Avenue Christian Church erect \$100,000 addition; 3 stories, 75 classrooms for Bible School.

Mo., St. Louis—Fifth Church of Christ, Scientist, W. H. Clarkson, Chmn., Bldg. Comm., probably soon ready for bids for brick and stone building, Potomac and Arkansas Sts.; cost \$200,000, 1 story and basement, 135x125 ft., seat 1000; Wedemeyer & Nelson, Archts., 824 Wainwright Bldg. 9-29

Mo., Springfield—Woodland Heights Presbyterian Church, Rev. Edwin Armstrong, Pastor, 2108 Missouri Ave., erect frame Sunday school addition after plans by Wilmer

N. Thompson, Archt., 400 Loren St.; 1 story, 28x43 ft. 10-13

N. C., Greensboro—Forest Avenue Baptist Church, Rev. Wilson Woodcock, Pastor, plans building, Walker Ave. and Aycock St.

N. C., Winston-Salem—Centenary and West End Methodist Churches, J. G. Hanes, Chmn., Bldg. Comm., J. K. Norfleet, Vice-Chmn., erect joint building. 7-14

N. C., Winston-Salem—Macedonia Moravian Church in Davie County plans to start work soon on \$10,000, 66x50 ft. building; Stephen Morgan Smith heirs, York, Pa., interested.

Okla., Sentinel—South Methodist Church soon take bids for building to seat 350; cost \$20,000; Clay Riggins, Archt., Anadarko.

Okla., Tulsa—United Brethren Church, Rev. Ira A. Holbrook, Pastor, erect \$50,000 building.

Tenn., Knoxville—Church Street M. E. Church, South, H. L. Dulin, Pres., Bldg. and Advisory Comm., plans \$1,000,000 combination office and church building; office section at rear and above church; Sunday school; John Russell Pope, Archt., 542 Fifth Ave., New York; Barber & McMurry, Asso. Archts., 425 W. Church St., Knoxville. (Previously noted to erect \$500,000 church and Sunday school.) 10-7-26

Tenn., Memphis—Baron Hirsch Congregation, care Dave Dermon, Dermon Bldg., has low bid from J. B. Hanson Co., Inc., 769 Vance Ave., for \$150,000 school and cultural center; W. C. Lester, Archt., 824 Dermon Bldg.; Harry B. Hunter, Engr., U. & P. Bank Bldg.

Tenn., Nashville—Immanuel Baptist Church, Martin S. Roberts, Chmn., Board of Deacons, plans Sunday school.

Tex., Big Springs—First Presbyterian Church, Rev. R. L. Owen, Pastor, plans \$75,000 building.

Tex., Denison—Waples Memorial M. E. Church, W. H. Hall, Chmn., Bldg. Comm., receive bids Dec. 28 at office John Tulloch, Archt., M. & P. Bank Bldg., Sherman, for fireproof Sunday school; plumbing and electrical work let separately; plans and specifications on file at office Archt.

Tex., Floydada—Baptist Church, Rev. W. R. Hill, Pastor, plans first unit of \$60,000 building.

Tex., Fort Worth—First Christian Church, R. H. Foster, member, Bldg. Comm., plans to start work Feb. 1 on \$140,000 unit of \$200,000 Sunday school; 6 stories, swimming pool, lockers; Clyde H. Woodruff, Archt., Reynolds Bldg.; probably complete plans in several weeks.

Tex., Galveston—Texas Home Mission, Lutheran Church, erect seamen's church and hall.

Tex., Houston—Second Baptist Church, J. W. Neal, Chmn., Site and Finance Comm., plans building.

Tex., Mauriceville—Baptist Church, Rev. J. L. Sargent, Pastor, Dowellville, plans building to replace structure burned.

Tex., Taft—Methodist Church plans addition. Address The Pastor.

Va., Petersburg—First Baptist Church receives bids Jan. 10 at office Herbert L. Cain, Archt., Grace Securities Bldg., Richmond, for \$160,000, 3-story, 52x160 and 56x90 ft., brick and stone church and Sunday school building; wood, composition and concrete floors, concrete foundation, slate and tin roof, equipment \$40,000. See Want Section—Building Material and Equipment. 9-29

Va., Richmond—Beulah Methodist Church, Stop 21, Petersburg Turnpike, Rev. A. L. Carson, Pastor, erect \$10,000 stucco addition.

City and County

Ark., Camden—Ouachita County, J. W. Livingston, Judge, repair courthouse; cost \$10,000; J. T. Mendenhall, Contr.

Fla., Chipley—Washington County Board of Commrs. has low bid at \$129,000 from J. B. Carroll, Plant City, for courthouse and jail; Frank W. Lockwood, Archt., 119 Adams St., Montgomery, Ala. 11-17

Fla., Pensacola—City, J. H. Bayliss, Mayor, erect \$25,000 stadium; bonds voted; defeated \$50,000 library bonds. 11-17

Ga., Atlanta—City Council erect golf clubhouse, in proposed Peachtree Creek Memorial Park; brick and stone, 2 stories and basement, slate roof, lockers; Edwards & Sayward, Archts., 101 Marietta Bldg.

Ga., Canton—Cherokee County, E. A. McCandless, Chmn., Board of Commrs., received low bid at \$135,950 from J. S. McCauley Co., Bona Allen Bldg., Atlanta, for \$150,000, 4-story and basement, 92x83 ft., reinforced concrete courthouse; structural steel trusses, Georgia marble veneer, brick and tile back-

up walls, terra cotta interior partitions, composition roof; A. Ten Eyck Brown, Archt., Forsyth Bldg., Atlanta. 12-8

Ga., Saint Marys—Camden County Comms. considering erection courthouse.

La., Bastrop—City plans fire station; 2 stories, brick, fire-alarm switchboard system on second floor.

Miss., Carthage—Leake County Board of Supervisors having plans drawn by N. W. Overstreet, Miss. Fire Bldg., Jackson, for \$80,000 courthouse; rein. concrete, brick, cast stone trim, 2 stories, fireproof, rein. concrete foundation, tile roof, steel roof trusses, cement and tile floors, steam heat; election Dec. 20 on bonds. 12-1

Mo., Liberty—Clay County Comms. plan courthouse.

N. C., Lenoir—Caldwell County Board of Comms., F. H. Coffey, Chmn., may remodel courthouse and erect jail.

Okla., Muskogee—City, Paul Williams, Mayor, will vote on \$400,000 city hall bonds. 10-6

Tenn., Maryville—Blount County, John C. McCampbell, Sheriff, may erect jail; probably County Court will take action at Jan. session.

Tex., Alvin—City votes Jan. 3 on \$20,000 city hall bonds. Address City Council.

Tex., Dallas—City voted \$350,000 bonds for fire department, central station and other improvements; \$500,000 for libraries, additions and equipment; \$500,000, Institute of Fine Arts Building and Equipment; \$1,000,000, municipal auditorium; E. A. Wood, City Engr.

Tex., Texas City—City, E. L. Noble, Mayor, receives bids Dec. 29 for \$100,000, 2-story, 114x146 ft., reinforced concrete, fireproof city hall building to include auditorium and gymnasium; reinforced concrete foundation, steel windows, cement floors, composition roof, steam heat; Page Bros., Archts., Austin Natl. Bank Bldg., Austin.

Dwellings

Ala., Birmingham—H. M. Davis, 2630 Highland Ave., erect \$25,000 residence, S. Highland subdivision; brick veneer, 2 stories, 36x60 ft., tile baths, slate roof, vapor heat; C. H. McCauley, Archt., 708 Jackson Bldg.; bids in.

Ala., Birmingham—Calvin Jones, 3053 Highland Ave., erect \$40,000 residence, Rockridge Park; brick veneer or native stone veneer, 1 story and basement, 47x100 ft., oak floors, slate roof and porch, stone trim, steam heat; C. H. McCauley, Archt., 708 Jackson Bldg.; bids in.

D. C., Washington—Geo. W. Dorr, McLachlen Bldg., erect brick and tile residence, 3518 Thirty-fifth St. N. W.; 2 stories; cost about \$10,000.

D. C., Washington—J. J. James, 4510 Seventh St. N. W., erect 4 brick dwellings, 6110-18 Seventh Place N. W.; 2 stories; total cost \$25,000.

D. C., Washington—Chas. D. Sager, 3024 Wisconsin Ave. N. W., erect 10 brick and tile dwellings, 549-567 Twenty-fourth St. N. E.; 2 stories; total cost \$40,000.

D. C., Washington—Clarence A. O'Brien, Security Savings and Commercial Bank Bldg., erect modified English type residence, 17th and Crittenden Sts. N. W.; 3 stories, 78x44 ft., red brick, Aquila Creek stone trim, variegated slate roof, quartered oak, terra cotta colored tile and rubber tile floors, 5 baths, 6-ft. tile wainscoting in baths; 2-car garage; Porter & Lockie, Archts., Architects Bldg.

Fla., Coral Gables, Miami—Egbert H. Gold, erfies, Inc., erect 2 dwellings and garages, 1018 Avenue Catalonia and 1140 Avenue Astruria; 2 stories; total cost \$26,000.

Fla., Coral Gables, Miami—Durrett Properties, Vapor Car Heating Co., Inc., 80 E. Jackson Blvd., Chicago, Ill., erect \$125,000 residence, Indian Creek near 53d St.; Mr. Gold's present address, Panoast Hotel, Miami; Walter C. DeGarmo, Archt., 39 S. E. Sixth St., Miami.

Fla., Ocala—C. G. Rose erect \$17,000 residence, E. Tenth St. near Lake Weir Ave.; brick and tile.

Fla., Ocala—Percy Thigpen erect \$10,000 residence, Fort King Ave., Osceola Estates, near Ocala.

Ga., Atlanta—J. J. Edwards, 699 Cascade Ave. S. W., purchased 23 lots, Laurel Ave.; erect brick bungalows; total cost \$75,000.

La., Baton Rouge—J. F. Walker erect \$15,000 residence, Drehr Place.

La., Shreveport—J. H. Rowland, 665 Jordan St., erect residence, Opa subdivision.

Md., Baltimore—Wm. F. Broening, Mayor, Ave., erect \$12,000 brick residence and garage,

4637 Springlake Way, Homeland; 2½ stories; Machen & Dixon, Archts., 312 N. Charles St.

Md., Baltimore—Earl G. Taylor, 3125 Abell repair residence, 3600 Fairview Ave., damaged by explosion; cost \$13,687. 8-11

Md., Glenburnie—Baltimore Company, Wm. E. Ferguson, Pres., 100 E. Pleasant St., Baltimore, purchased 400 lots facing Annapolis Blvd. and Crain Highway in Glenburnie and will erect dwellings and probably commercial buildings.

Miss., Meridian—C. F. DeMulder, Masonic Temple Bldg., plans \$10,000 brick veneer residence, Northwood; 1 story and basement, wood floors, composition shingle roof.

Mo., Clayton—F. W. Taylor, 24 Sunset Court, erect \$10,000 residence and garage, Augusta St., Normandy Grove; brick, 37x32 feet.

Mo., Kansas City—Jos. W. Kessinger, Asst. Cashr., Mo. Savings Bank and Trust Co., Leonard C. Kline, New York Life Bldg., and Bevis Longstreth, Mfrs. Exchange Bldg., erect residence group on 20-acre tract south of 75th St.; 3 residences, Norman type, whitewashed brick and stucco, half timber and shingles, 2 slate roofs, 1 shingle roof; stable for 12 horses, caretaker's lodge, polo field, tennis courts, 1-acre lake; Boillot & Lauck, Archts., Orear-Leslie Bldg.

Mo., Kansas City—Thos. H. Neal, Vice-Pres., Marshall Hughes Co., 2233 Grand Ave., purchased homesite, 646 W. 69th St. Terrace, Romanelli Gardens.

Mo., Kirkwood, St. Louis—H. C. Stribbling, care W. A. Caldwell, Archt., 3719 Washington Blvd., erect brick residence; 2 stories, attic and basement, 44x42 ft.

Mo., St. Louis—C. Di Franco, 2107 Edwards Ave., erect brick and tile residence, Macklin and Botanical Aves.; 1½ stories and basement, 35x50 ft., hardwood floors, concrete foundation, tile bath, slate roof, oil burner; F. V. Avis, Archt., 1019 Big Bend Blvd.

Mo., St. Louis—W. B. Heard, 4625 Rosa Ave., erect \$12,000 brick duplex, Boland Drive; 2 stories, 25x44 ft., stone foundation and trim, oak floors, slate roof, tile baths, hot air heat; O. J. Popp, Archt., 1528 Arcade Bldg.

Mo., St. Louis—Geo. Knapp, 17th St. and Broadway, East St. Louis, Ill., erect \$35,000 residence, Upper Ladue subdivision; brick and stucco, 2 stories and basement, 54x11x21x31 ft., hardwood floors, concrete foundation, tile bath, steam heat; Klipstein & Rathmann, Archts., 316 N. Eighth St.

Mo., St. Louis—Mrs. H. A. Lueking, 1404 Mullamphy St., erect semi-fireproof residence, Natural Bridge Rd.; rein. concrete and brick, 1 and 2 stories and basement, 72x39 ft., concrete foundation, marble, terrazzo and hardwood floors, tile roof, electric refrigerator, incinerator; L. F. Graham, Archt., 4885 Natural Bridge Ave.

Mo., St. Louis—J. F. Nahrm, 782 Tuxedo Blvd., Webster Groves, erect \$10,000 residence, 6036 Arsenal St.; brick, 2 stories and basement, 24x29 ft., oak floors, composition shingle roof, hot air heat; J. R. Egbert, Archt., 1043 Louisville Ave., St. Louis.

Mo., University City, St. Louis—B. V. Grossman, 7918 Kingsbury Blvd., erect \$15,000 brick residence, 421 West Point Court; 2 stories and basement, 35x26 ft., oak floors, tile roof and baths, concrete foundation, hot water heat; Henry LaSage, Archt., 4942 Kansas St., St. Louis.

Mo., University City, St. Louis—Sam Himeles, 6270 Cates St., erect \$17,000 residence; brick, 2 stories and basement, about 34x62 ft., oak floors, stone foundation, slate roof, hot water heat, electric refrigerator; F. G. Avis, Archt., 1019 Big Bend Blvd.

N. C., Charlotte—W. E. Thomas, Johnston Bldg., erect 4 one-story frame duplexes, Stanton St., 4 on S. Alexander St. and 6 on E. Vance St.; total cost \$21,800.

Okla., Oklahoma City—Lee B. Bradway, 1434 W. 44th St., erect \$5000 duplex, 1701 W. 18th St., \$3500 duplex, 1813 W. Blackwelder Ave., and \$10,000 brick dwelling, 241 W. 32d St.

Okla., Tulsa—Oscar Springer, 1543 E. 15th St., erect \$12,500 brick veneer residence, 1304 E. 26th Place.

Okla., Tulsa—H. Switzer erect \$12,500 brick veneer residence, 1308 E. 26th Place.

Tenn., Memphis—Foster & Stephenson, First Nat'l Bank Bldg., erect 6 dwellings, Colonial Gardens; Estes W. Mann, Archt.

Tenn., Nashville—Walton Barker, care Donald W. Southgate, Archt., 1103 Nashville Trust Bldg., postponed erection of residence. 12-15

Tex., Brownsville—E. H. Parker erect \$12,000, 2-story residence.

Tex., Fort Worth—James F. Doffmeyer erect 2 brick veneer dwellings, 3403-05 Jennings St.; cost \$5000 each.

Tex., Fort Worth—John G. Eaton, Fort Worth Natl. Bank Bldg., erect \$16,500 tile and stucco residence, 2401 Rogers St.

Tex., Harlingen—J. C. Tom erect \$13,000 residence; 8 rooms, brick.

Tex., Harlingen—F. L. Flynn erect \$11,000 residence; Stanley W. Bliss, Archt.

Tex., Houston—Leeland & Smith erect \$12,000 residence and garage, 2211 Oakdale St., Riverside Terrace addition; 2 stories, 7 rooms and bath, brick veneer.

Tex., Houston—Mrs. Burdine C. Anderson erect residence, 1500 block South Boulevard, Broadacres; probable cost \$75,000.

Tex., Houston—Wm. P. Chuppan erect \$10,000 duplex, 1905-07 E. Alabama St., Autry Hall addition; 2 stories, 11 rooms.

Tex., Houston—C. S. Wood, Pres., Seaboard Realty & Building Co., erect number dwellings, Universal City.

Tex., Ingleside—Humble Oil & Refining Co., E. A. Bynum, Gen. Supt., erect 10 employees' dwellings; Ben S. Love, Engr.

Tex., La Porte—W. H. Irwin erect \$35,000 residence, Grand View Addition near La Porte; Mediterranean type, 2 stories, hollow tile and stucco; Jos. Finger, Archt., Keystone Bldg., Houston.

Tex., Mercedes—C. H. Haynes soon let contract for \$15,000 residence.

Tex., Pharr—Pat Devine erect \$20,000 residence; tile and stucco, 2 stories; R. Newell Waters, Archt., Weslaco.

Tex., Quanah—Quanah Cotton Oil Co. erect 25 employees' dwellings.

Tex., San Antonio—Alamo Development Co., 1403 W. Woodlawn Ave., erect 3 frame and stucco dwellings, 742-750-802 E. Ashby Place; 6 rooms, cost \$3500 each.

Tex., San Benito—Fred Wedegartner erect \$20,000 residence; Harvey P. Smith, Archt.

Tex., Temple—Stanton & Campbell plan dwellings connection with development of Rose Lawn and Park Lawn.

Government and State

Fla., Key West—Following contractors estimating on remodeling, etc., pharmacist's quarters, U. S. Marine Hospital, bids to be opened Dec. 30 by Treasury Dept., Washington, D. C.: Virginia Engineering Co., First Natl. Bank Bldg.; Newport Contracting & Engineering Co., both Newport News, Va.; W. D. Lovell, 1415 Eighth St. S. E., Minneapolis, Minn.; Southern Construction Co., Pensacola, Fla.; English Construction Co., 1311 H St. N. W.; Smythe & Co., 1316 F St. N. W., both Washington; Wm. MacDonald Construction Co., Synd. Trust Bldg., St. Louis, Mo.; King Lumber Co., Charlottesville, Va.; Theriault Contracting Co., 534 E. Johnson St., Philadelphia, Pa. 12-8

Ky., Richmond—Kentucky National Guard plans armory; cost about \$22,500.

Md., Cascade—United States Property and Disbursing Officer for Maryland, Annapolis, receives bids in triplicate Jan. 20 for regimental headquarters building; Robt. L. Harris, Archt., 13 W. Saratoga St., Baltimore; information on application to Construction Quartermaster, State Military Reservation, Cascade.

Mo., Jefferson City—State Highway Commission of Missouri, T. H. Cutler, Mgr., let contract to Joseph Pope Construction Co. to clear site for \$350,000 State Highway Dept. office building; Missouri or Indiana limestone, 3 stories and basement, 63x114 ft., with 1-story and basement extension 63x25 ft., steel interior partitions, fireproof, 1 electric elevator; electrical work, heating and plumbing to be in gen. contract; proposals to be called for in local papers; plans and specifications to come from Mr. Cutler; Egerton Swartwout, Archt., 18 W. 34th St., New York. 11-17

Okla., Bartlesville—Government probably erect \$175,000 post office; recommendation approved by President.

Tex., Galveston—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., receives bids Jan. 6 for new room on second floor of postoffice and custom house.

Hospitals, Sanitariums, Etc.

Ark., Helena—City, D. T. Hargraves, Chmn. Hospital Bldg. Comm., ready for bids early in 1928 for \$150,000, rein. concrete, face brick and stone hospital; 3 stories and basement, 90x150 ft., tile, concrete and linoleum floors, tile roof, vapor heating; Eugene John Stern, Archt., A. O. U. W. Bldg., Little Rock; A. P. Coolidge, Asso. Archt.

Ark., Huntsville—City considers erecting hospital. Address Dr. Fred Youngblood.

La., New Orleans—Southern Baptist Hospital Comsn., Whitney-Central Trust and Savings Bank, Trustee, is offering \$525,000 refunding first mortgage 5½% serial and sinking fund gold bonds to refund outstanding mortgage indebtedness.

N. C., Winston-Salem—Junior League, Mrs. Wm. Oliver Spencer, Jr., Pres., plans to let contract in about 2 weeks for fireproof hospital for incurables; cost \$60,000. 11-10

Tenn., Chattanooga—City of Chattanooga and Hamilton County probably have plans ready latter part of Jan. or first of Feb. for bids on children's hospital, Glenwood; R. H. Hunt Co. and W. H. Sears, Archts., both James Bldg.

Tex., Austin—State Board of Control, Dr. H. H. Harrington, Chmn., erect \$50,000 fireproof convalescent ward, Austin State Hospital; rein. concrete, hollow tile and brick, 2 stories, cement floors, built-up roof; W. E. Ketchum, Archt., Pope Bldg.

Tex., Beeville—J. T. Ballard erect 12-room hollow tile and stucco clinic to be used by Drs. L. L. Griffin and H. E. Lancaster, owners Beeville Hospital; W. C. Stephenson, Archt.

Tex., Nacogdoches—City Council, Roy Gray, Alderman, erect \$50,000 hospital. 9-29

Hotels and Apartments

Ala., Bay Minette—Louis Smith, Trammell Hotel, announced plans for \$100,000, 3½-story and basement, 50x100 ft., 50-room hotel building, on site of present structure; hollow tile and stucco exterior, steel frame, elevators, auditorium and dance hall, dining hall to accommodate 75 guests, built-up roof, concrete and wood floors.

Ala., Montgomery—Exchange Hotel, operated by Baron-Wilson Co., make improvements to cost \$150,000; Jack Gaslar, Chicago, Ill., will supervise installation of new furniture and fixtures, designs for painting and carpeting, etc.; Okel & Cooper, Archts., Bell Bldg.

Ala., Selma—Board of Directors of Chamber of Commerce plans to erect \$450,000 hotel, following survey by Hockenbury System, Inc., Harrisburg, Pa.; offer stock for sale starting Jan. 1. 12-8

Fla., Jacksonville—T. J. McRae erect \$15,000, 2-story, brick veneer apartments, 2501-7 Market St.

Fla., Lake Wales—Charles M. Andrews, 3404 W. Grace St., Richmond, Va., reported, planning \$1,000,000 co-operative apartment building.

Fla., Miami Beach—Normandy Beach Properties Corp., 201 E. Flagler St., has permits for \$30,000, \$33,500 and \$31,000 apartment houses in Isle of Normandy.

Ga., Savannah—Baron & Willson Co. purchased Savannah Hotel, furniture, etc.; by terms of lease 150-room addition will be built when required by lessees.

Mo., St. Louis—Benjamin Ansehl, Pres. of Benjamin Leland & Co., 4101 Lindell Blvd., has plans in progress for \$1,000,000, 12-story apartment hotel, N. W. corner Lindell Blvd. and Sarah St.; Jesse L. Bowling, Archt., Arcade Bldg. 12-15

N. C., Charlotte—Hemlock Realty Co. erect three 2-story, frame and stucco, 4-family apartment houses on S. Davidson St.

N. C., Charlotte—C. W. Godfrey erect two 2-story, brick veneer, 4-family apartment houses, Walnut Ave.; \$23,000.

N. C., Charlotte—J. J. McAden erect \$14,000, 2-story, brick veneer, 4-family apartment house at 1503 East Boulevard.

N. C., Charlotte—Paul R. Younts, Inc., 408 S. Tryon St., has permit for \$9000, 2-story, brick, 4-family apartment house at 615 Tremont Ave.

S. C., Blacksburg—Simon D. Turner purchased Borders Hotel; planning to remodel and refurnish.

Tex., Dallas—George W. Owens of Southwest Golf Equipment Co., 2219 Commerce St., and associates plan to erect 5-story hotel southeast corner Colorado St. and Ballard Ave., Oak Cliff; first floor for stores.

Tex., Dallas—Morten Investment Co., Charles A. Mangold, Vice-Pres., Jefferson Hotel, purchased property at S. W. cor. Main and Martin Sts.; tentatively planning 10-story hotel building.

Tex., El Paso—Otto Kahn of Kahn, Loeb & Co., 1100 5th Ave., New York; C. N. Bassett, 226 Pennsylvania Ave., Pres. of State Natl. Bank, and Warren Pilcher, interested in construction of hotel sport club and residential subdivision involving \$1,500,000; Trost & Trost Archt., Two Republics Bldg., prepared sketches.

Tex., Fort Worth—H. C. Malone erect \$35,000 brick apartment house at 1407 W. Cooper St.

Tex., Fort Worth—H. C. Malone erect \$35,000, 2-story, brick, 40-room, 8-unit apartment building at 1407 W. Cooper St.

Tex., Fort Worth—S. B. Ruth erect \$30,000, 32-room, 2-story apartment house at Exchange Ave. and N. Houston St.

Tex., Houston—A. R. Anderson, Jr., 3802 Austin St., erect \$25,000, 2-story, 8-apartment building at 1316 Alabama St.; 4 apartments of 4 rooms and bath each and 4 of 5 rooms and bath each.

Tex., Port Arthur—W. J. Wutke, owner of Central Hotel, plans to add 2 stories; 50 rooms each with private bath.

Miscellaneous

Ark., Little Rock—Mrs. Malcolm Gannaway, chairman of campaign, selling \$75,000 worth of stock in Woman's City Club, Inc., for 3-story, brick clubhouse at Fourth and Scott Sts. 11-24

Ga., Folkston—L. E. Mallard, J. C. Littlefield, William Mizzell, Jr., and E. B. Stapleton erect 25x40 ft. building to be operated as restaurant by Dr. and Mrs. W. E. Banks.

Miss., Pascagoula—Pascagoula Community League, care H. F. Gautier, planning \$11,000 to \$13,000 community house.

Mo., Humansville—Chamber of Commerce purchased site and 3 citizens subscribed \$5000 each for erection of \$50,000 community building; contain auditorium, library and gymnasium.

Okla., Oklahoma City—Executive Committee of Oklahoma State Athletic Club authorized employment of architect for proposed \$750,000, 12-story building; equipment cost additional \$250,000; swimming pools, auditorium, convention hall to seat 5000, banquet and luncheon rooms. 10-20

Okla., Tulsa—C. P. Alexander, Alexander Bldg., contemplates 8-story, 140x50-ft. building at N. W. cor. Fifth and Main Sts.; work to start early in Jan.; cost, type, etc., not yet determined.

Tex., Houston—Houston Flying Club, Vic V. Hays, Pres., 404 Heights Blvd., erect clubhouse on Richmond Road.

Tex., Port Aransas—Port Aransas Sporting Club, care W. H. Vernor, 612 Travis Bldg., has plans in progress by Phelps & Dewees, Gunter Bldg., both San Antonio, for 2-story, reinforced concrete, hollow tile and stucco clubhouse.

Tex., San Antonio—Fat Stock Show Assn. may erect 100x225-ft. arena on E. Houston St., seating capacity 6000.

Va., Wakefield—Wakefield National Memorial Assn. will rebuild replica of birthplace of George Washington.

Railway Stations, Sheds, Etc.

Ala., Tuscaloosa—Alabama Great Southern R. R. Co., reported, planning to build suburban passenger station at crossing going into University Place in East End.

Fla., Lake Wales—Atlantic Coast Line Railway Co., J. E. Willoughby, Ch. Engr., Wilmington, N. C., start work in early spring on \$50,000 passenger station.

Mo., St. Louis—Wabash Railway Co., R. H. Howard, Ch. Engr., reported, erect \$300,000 passenger station on Delmar Blvd. in connection with viaduct now under construction.

Schools

Ala., Brighton (Br. of Bessemer)—Jefferson County Board of Education, E. B. Erwin, Supt., Birmingham, plans to rebuild school recently burned at \$65,000 loss; also planning McNeal school and Pipeshop negro school, both near Bessemer.

Ala., Fairfield—City Council and Board of Education will ask \$150,000 bond issue to build Senior High School.

D. C., Washington—District Commissioners, Room 509 District Bldg., receives bids Dec. 27 for installing toilets, etc., and certain remodeling at Curtis and Addison schools.

Ga., Macon—Mercer University planning \$50,000 law building; 2 stories, provide 3 classrooms, courtroom, offices and library.

Ga., Savannah—Board of Education selected Levy & Clarke, Blum Bldg., as Supv. Archts. and Cletus W. Bergen, Liberty Bank Bldg., as Const. Archt. for proposed construction work.

Ga., Waycross—Board of Education soon receive bids for \$25,000, 2-story, brick River-view school building; concrete and wood floors, composition roof; Batson-Cook and West Point Iron Works bidding on work;

R. Kennon Perry, Archt., Wynne-Claughton Bldg., Atlanta.

La., Baton Rouge—St. Vincent's Academy, reported, contemplates rebuilding on present site on North St.

La., Cedar Grove—Caddo Parish School Board, Shreveport, receives bids Jan. 14 for repairs to recently burned school.

La., New Orleans—Wm. T. Nolan, Archt., Canal Bank Bldg., completed plans; soon receive bids for 2-story, reinforced concrete, pressed brick and stone trim parochial school building for St. Joseph Boys' congregation; fireproof, 16 classrooms, concrete foundation, composition roof, plastered interior, steam heat, structural and miscellaneous steel work.

La., Opelousas—St. Landry Parish School Board, W. B. Prescott, Supt., receives bids Jan. 2 for 2-story brick school at Prairie View and 1-story frame school at Prairie Ronde; plans and specifications from Herman J. Duncan, Archt., 120 Murray St., Alexandria.

Miss., Meridian—Board of Education, Dr. H. M. Ivy, Supt., has plans in progress by P. J. Krouse, M. & W. Bldg., for 2-story and basement junior high school and 2-story brick addition to East End school; built-up composition roof.

Miss., Orange Grove—Jackson County Board of Supervisors, Pascagoula, probably call \$40,000 bond election in Orange Grove School District for 1-story, fireproof school building.

Miss., Poplarville—Board of Trustees of Pearl River College considering architects' plans for \$20,000 dormitory building.

Miss., Senatobia—School Board call election in Feb. on \$35,000 bonds for new school building.

Miss., Yazoo City—Yazoo County Board of Education plans to erect consolidated school.

Mo., St. Louis—Board of Education, care Henry P. Schroeder, considering erection of new Administration Building at 14th and Olive Sts. on Municipal Plaza.

N. C., Davidson—Davidson College probably have plans this week for \$350,000, brick and reinforced concrete Administration Building; built-up roof, stone trim; H. C. Hibbs, Archt., American Trust Bldg., Nashville, Tenn.

N. C., Durham—Board of Education, M. B. Fowler, Business Mgr., will take over Free Will Baptist Church adjoining Umstead Street school site; will remodel into residence for janitor.

N. C., Hickory—Board of Trustees of Lenoir Rhyne College authorized purchase of new equipment and furniture for 3 buildings under construction; will remodel boys' dormitory, science hall and Old Main.

N. C., Shelby—Cleveland County Board of Education, J. H. Gregg, Supt., receives bids Jan. 15 for 200x200 ft., 1-story, brick, 16-classroom and auditorium school in District No. 8; concrete foundation, wood floors, composition shingle roof; Jas. J. Baldwin, Archt., 204-5 Taylor Bldg., Asheville. 12-15

N. C., Wingate—Wingate School District voted \$75,000 bonds for school building; I. J. Tucker, Archt.; Union County Board of Education, owners; both Monroe.

Okla., Holdenville—School Board soon call for \$40,000 bond election for school improvements.

Okla., Oklahoma City—Board of Education, J. R. Barton, Supt. of Schools, selected following architects to prepare plans for \$1,700,000 expansion program: Layton, Hicks & Forsyth, Braniff Bldg., for additions to Roosevelt, Webster and Classen high schools and new buildings southeast of Lee School, northeast of Linwood, southeast of Longfellow and new Herronville School; also named as supervisors for entire program: Leonard Bailey, Colcord Bldg., for additions to Hawthorne and Dew Spivey Schools; Valberg, Sorey & Layton, Braniff Bldg., addition to Central High School; Harry Reynolds, Mercantile Bldg.; additions to Horace Mann and Edgemere buildings; Joe I. Davis, First Natl. Bank Bldg., additions to Linwood and Wilson schools; Guy C. Reed, 2039 W. 17th St., for work on Westwood school and administration building. 12-8

Okla., Perry—City voted \$47,000 bonds; build addition to High School, provide more auditorium and gymnasium facilities; W. Max Chambers, Supt. of Schools. 12-1

Okla., Tulsa—Board of Education, P. P. Claxton, Supt., plans 4 rooms and kindergarten at Whittier school; kindergarten building at Kendall school; 2 rooms at Jefferson school and 2 rooms and auditorium at Sequoyah school.

Okla., Tulsa—University of Tulsa planning construction of \$250,000 Indian museum and memorial building.

Tenn., Memphis—Board of Education receives bids Dec. 30 for \$500,000, 3-story and basement, reinforced concrete Technical High School building on Poplar Blvd.; accommodate 1000 students; auditorium to seat 1300; concrete floors, stone trim, steam heat, built-up roof, steel trusses; Harker & Cairns and Joe T. Wallace, Archts., 600 Court Square Bldg.; following contractors estimating: W. W. Wessell, 388 N. Front St.; B. E. Buffalo & Co., 658 East St.; D. D. Thomas & Son, 463 N. Dunlap St.; H. J. Gilbertson Construction Co., Duman Bldg.; Gauger-Korsmo Construction Co., Fidelity Bank Bldg.; H. A. McGuire & Co., Duman Bldg.; F. V. Ragsdale Co., Duman Bldg.; J. E. Hollingsworth. 12-8

Tenn., Nashville—Board of Education receives bids Jan. 3 for \$300,000, 2-story and basement, 250x100-ft. Elementary School building, Jones Ave. and 24th St.; auditorium, kitchen, cafeteria, etc.; brick bearing walls, face brick exterior, stone trim; cement composition and wood floors, hollow tile partitions; George D. Waller, Archt., Independent Bldg. 12-15

Tex., Alta Loma—Galveston County Board of Education, Galveston, organized Santa Fe High School District; plans bond issue for high school between Alta Loma and Arcadia Address M. Brooking, member District Board of Trustees.

Tex., Houston—Board of Education of West University Independent School District, H. B. Schlesinger, Pres., receives bids Dec. 21 for \$80,000, 2-story, fireproof, reinforced concrete, brick and tile Junior High School building; plans, specifications from Lamar Q. Cato, Archt., Bankers Mortgage Bldg. 11-24

Tex., Lubbock—Texas Technological College Board of Regents, Clifford B. Jones, Chmn., contemplates erecting \$275,000 Science Building in 1928; Wyatt C. Hedrick, Archt., First Natl. Bank Bldg., Fort Worth.

Tex., Mercedes—School Board considering \$38,000 bond election for purchase of 5-acre tract at Ohio Ave. and Tenth St.

Tex., Robert Lee—Prof. L. C. Pyle, Supt. of Schools, planning to erect school addition next year.

Tex., San Antonio—Harry Ables and Board of Education contemplates erecting 1-story, 94x105-ft., frame basketball gymnasium, League Park, Josephine St.

Tex., San Antonio—St. Mary's University rejected all bids for 1 and 2 story, 180x120-ft., reinforced concrete, brick, stucco Gymnasium Building; Leo M. J. Dielmann, Archt., 306 E. Commerce St.

Tex., Texas City—School Board, J. P. Jones, Pres., receives bids Dec. 29 for \$150,000 High School building; plans and specifications from Page Brothers, Archts., Austin Natl. Bank Bldg., Austin. 11-10

Tex., Wichita Falls—State Board of Control, Dr. H. H. Harrington, Chmn., has plans in progress by Voelcker & Dixon, Perkins-Snyder Bldg., for \$125,000, 2-story, 80x140-ft., brick and reinforced concrete, fireproof dormitory.

Va., Clintwood—Dickenson County Board of Education will erect new building at Steinman.

Va., Salem—Plank & Whitsett, Blacksburg, purchased lot at cor. Main St. and College Ave., reported, will erect \$55,000, 1-story, 200x45-ft. theater building.

Stores

Ga., Macon—W. H. Turpin erect brick stores at 566-70 Poplar St.; \$10,000.

La., New Orleans—M. Bendish, 2012 Franklin Ave., receiving sub-contract bids on \$10,000 building at St. Philip between Ursuline and Robertson Sts.

La., New Orleans—Andry & Fettel, Archts., New Orleans Bank Bldg., call for bids this week for 1-story, frame and stucco addition and alterations to present store on Magazine and Gallienne Sts., for G. & B. Groetch, 1136 Magazine St.; composition roof, plastered interior, plate glass windows.

Md., Baltimore—Thomas Hicks, of Thomas Hicks & Sons, Inc., Contrs., 106 W. Madison St., acquired Madison Street Presbyterian Church, 104 W. Madison St., plans to remodel for commercial purposes.

Miss., Gulfport—A. C. Buxton and Hamilton-Rice Co. receive bids Dec. 26 for 1-story, brick and terra cotta arcade market building on 13th St.; \$30,000; 110x125 ft., fireproof, steel skeleton frame; steel contract let to Decatur Iron & Steel Co., Decatur, Ala.; Shaw & Woleben, Archts.

Miss., Laurel—R. C. Gaddis has plans in progress, by P. J. Krouse, M.-W. Bldg., Meridian, for \$75,000, 2-story and basement,

reinforced concrete, brick and stone trim department store building; fireproof, plate glass windows on marble base, tile floors, composition roof, steel sash, fire doors, structural steel, ornamental iron.

N. C., Charlotte—Exchange Realty Co. erect \$10,000, 1-story brick store at 1010 Central Ave.

N. C., Durham—Pope Furniture Co., C. A. Pope, remodel Salmon Bldg., E. Chapel Hill St.

N. C., Lexington—John W. Earnhardt erect brick store building, Second Ave. west and State St.

Okla., Oklahoma City—S. Chester Davis, Bus. Mgr. for G. A. Nichols, Inc., 115 N. Harvey St., announced work soon start on business buildings, theater and several shop buildings in Spanish Village.

Tex., Brownsville—Bert Cromack contemplates erecting two \$10,000, 1-story, brick store buildings.

Tex., Dallas—Mrs. Ray McDonald, 3812 Hall St., erect \$17,500, 1-story, brick stores at 3209-13 Oak Lawn St.

Tex., Houston—Alexander Bale has permit for \$60,000, hollow tile and wood community market, 4222 Main St.

Tex., Houston—C. L. House, owner of Montrose Grocery, 3302 Louisiana St., erect community store center at Milam and Stuart Sts.

Tex., Los Fresnos—Delta Development Co. has plans by R. Newell Waters, Archt., both Weslaco, for 1-story, 30x100-ft., brick, hollow tile and stucco store and bank building; \$20,000, metal lath and plaster, steel sash, tile, concrete and wood floors.

Tex., Plainview—D. D. Bowman erect brick building; 50 ft. front.

Tex., San Angelo—Findlater Hardware Co.

BUILDING CONTRACTS AWARDED

Association and Fraternal

Ky., Paducah—Economy Plumbing & Heating Co. awarded contract at about \$11,000 for plumbing and heating in \$200,000 Y. M. C. A. building for which E. J. Roper & Son have general contract at \$60,000 for first unit; excavation completed; G. Tandy Smith, Archt., Guthrie Bldg. 11-17

Bank and Office

Tenn., Memphis—Day Investment Co. complete and remodel interior of 8-story Medical Arts Bldg., Fourth and Madison Sts., by day labor; Estes W. Mann, Archt., Cotton Exchange Bldg. 12-15

Tex., Big Springs—Lester Fisher let contract to J. M. Morgan for \$13,000, 2-story, brick and reinforced concrete office building; Trost & Trost, Archts., Two Republics Bldg., El Paso.

Tex., Fort Worth—Fort Worth Properties Co., John T. Jones, Pres., 600 W. Tenth St., reported, let contract to Hewitt Construction Co., Bankers Mortgage Bldg., Houston, for \$1,000,000 Electric Bldg., Seventh and Lamar Sts.; 18 stories; basement and first 5 floors leased to Fort Worth Power & Light Co.; other floors for general office use; Wyatt C. Hedrick, Inc., Archt., First Natl. Bank Bldg., Fort Worth; plans probably ready within 6 weeks. 11-24

W. Va., Farmington—Bank of Farmington let contract to J. M. Kiser & Bro., Belt Line and Auburn St., Fairmont, for \$20,000, one-story, 30x73 ft., brick and stone building; composition roof, stone and cement foundation; natural gas heat; M. F. Giesey, Archt., Riley Law Bldg., Wheeling. See Want Section—Building Material and Equipment.

Churches

Fla., Jacksonville—Snyder Memorial M. E. Church has permit for \$15,000, one-story building on Eloise St.; Milburn Construction Co., Contr., Rt. 4, Box 653.

Ga., Macon—Empire Glass & Decoration Co., 150 Edgewood St., Atlanta, has stained glass window contract for \$200,000 Mulberry St. Methodist Church; Dunwoody and Oliphant, Archts., 460 Broadway; Chas. W. Jones & Sons, Contrs., 25 Wall St. 6-2

La., New Orleans—Edw. Chassaniol, 633 Baronne St., has composition roofing contract connection with \$17,000 remodeling of Second Church of Christ, Scientist; millwork, Art Manufacturing Co., 603 N. Claiborne Ave.; struct. steel, Lukens Steel Co., Poland and Rocheblave Sts.; Emile Well, Inc., Archt., Whiteney Bldg.; Chas. Gibert, Contr., Balter Bldg.

soon have plans by Korn & Morgan for \$30,000, 75x180-ft., 2-story, brick, reinforced concrete and hollow tile building on W. Concho Ave.

Tex., San Antonio—H. and R. C. Roos, Moore Bldg., contemplate erecting 5 or 6 story brick business building, 200 block S. Alamo St.; architect not selected.

Tex., San Antonio—Charles Steffler, 122 Ada St., has low bid from Blount & Miller, Builders Exchange Bldg., at \$12,980 for interior remodeling 2-story brick buildings at S. Alamo and Presa Sts., 5 stores on first floor, rooms above; L. Harrington Co., Archts., Builders Exchange Bldg. 12-8

Va., Norfolk—Henry B. Gilpin Co., James Roberts, Mgr., Kelly and Fayette St., leased 4-story, brick building at Main and Randolph Sts.; sprinkler system to be installed by Globe Automatic Sprinkler Co., 2035 Washington Ave., Philadelphia, Pa.; Wayland Moore, Contr., Plume and Talbot Sts., for repairs.

Theaters

S. C., Florence—M. F. Schnibben, Mgr. of opera house in city hall building, will remodel at cost of \$10,000.

Tex., Midland—T. S. Hogan have completed plans about Feb. 1 for \$300,000, 2-story, 75x170-ft., brick, stone and reinforced concrete, fireproof theater building; seating capacity 1500; Wyatt C. Hedrick, Archt., 1005 First Natl. Bank Bldg., Fort Worth.

Warehouses

Ala., Birmingham—Acme Company, H. G. Marsh, Mgr., erect \$90,000, 4-story, brick and concrete, 50x170 ft. warehouse at Sixth Ave. and Seventh St., Smith Park; Charles H. McCauley, Archt., Jackson Bldg.

La., Ruston—First Baptist Church, T. A. Green, Chmn., let contract to Brashear & Ruddell, Texarkana, Ark.-Tex., for \$45,000 Sunday school building; also remodel main auditorium and basement; 3 stories, 52x93 ft.; Ferrand & Fitch, Archts., Slaughter Bldg., Dallas, Tex. 11-17

Mo., St. Louis—St. Luke's E. L. Church, Alaska and Neosho Sts., erect \$90,000 church and Sunday school, 3419 Neosho; brick, 2 stories, 152x50 ft., composition roof; F. W. Nagel, Archt., 3509 Osage St.; Kellermann Contracting Co., Contr., 422 Victoria Bldg.

Okla., Tonkawa—First M. E. Church completed footings for \$65,000 building; rein. concrete, brick, Carthage stone, steel columns and trusses, 2 stories and basement, 40x75 ft. and 42x98 ft., cement and wood floors, concrete foundation, Johns-Manville rigid asbestos shingle roof, steel casements; furnishings, equipment, etc., \$15,000; Sorey & Vahlberg, Archts., Braniff Bldg., Oklahoma City; L. S. Fisher Construction Co., Contr., plumbing, Tonkawa Plumbing Co., both Tonkawa. 9-22

Tenn., Memphis—Prescott Avenue Presbyterian Church let contract to Clinton Building Co., Graham Bldg., for church and Sunday school; Prescott Ave. near Southern Ave.; brick and steel, 2 stories and basement, 112x38 ft., concrete and wood floors, composition shingle roof; Geo. Mahan, Jr., Archt., 700 Amer. Bank Bldg. 11-3

Tex., Bryan—Baptist Church erect brick building; T. J. Galbraith, Archt., Slaughter Bldg., Dallas; Mr. Nash, Contr., Bryan.

Va., Richmond—Oakland Methodist Church, F. W. Abbott, Chmn., Bldg. Comm.; Rev. A. L. Carson, Pastor, erect \$35,000 building, Stop 3, Petersburg Turnpike; Mr. Hartsook, Archt., Ashland; Mr. Hage, Contr., Richmond.

W. Va., Parkersburg—Liberty Street Church of God, Rev. O. O. Boggs, Pastor, let contract to B. C. Mercer, 19th St., for \$10,000 concrete and frame church and Sunday school; 1 story and basement, 44x36x60 ft., tile and stucco foundation, pipeless furnace; plans by Mr. Mercer. 12-15

City and County

Ala., Birmingham—H. L. Hahn, care W. B. Leedy & Co., Contrs., 112 N. 21st St., erect brick veneer residence, 4433 Clairmont Ave.; 2 stories, 32x96 ft., slate roof; Woodward & Lynch, Archts., 2115 N. First Ave.; plumbing and steam heating, Frank R. Heck, 915 S. 18th St.; wiring, Whisler Electric Co., 419 N. 19th St.

Ala., Birmingham—Poe Piping & Heating Co., 108 S. Main St., Greenville, S. C., has heating contracts at about \$30,000 for 5 buildings for City of Birmingham.

Miss. McComb—City let contract to August Wennerlund for fire station and dormitory; cost \$20,000, brick, 2 stories; J. Howard Ryan, Archt., Summitt, Miss.; H. A. Mentz, Consol. Engr., Hammond, La. 11-24

W. Va., Clarksburg—Steward McMunn Co., Sixth St., has heating and plumbing contract for \$55,000 Central Fire Station; electrical work, F. C. Welch Co., 333 Main St.; Edw. J. Wood & Son, Archts., 30-32 Lowndes Bldg.; A. L. Shrumm Co., 900 W. Pike St. 11-24

Dwellings

Ala., Birmingham—R. J. Weatherly, care C. H. McCauley, Archt., 708 Jackson Bldg., let contract for frame residence, Redmont Park, to Paul Bros., Hollywood; 2 stories, composition roof, steam heat. 12-1

Ark., Fort Smith—Southwest-Times Record erect model dwelling, Hendricks Hills; Miller Construction Co., Archt.-Contr.; electrical work, Masters Electric Co., 909 Garrison St.; painting, Great Western Paint Co.; hardware, O'Shea-Hinch Hardware Co., 924 Garrison St.

D. C., Washington—W. C. & A. N. Miller, 1119 17th St. N. W., erect 2 brick dwellings, 4514-4520 Hawthorne St. N. W.; 2 stories; total cost \$20,000; owner builds.

Fla., Coral Gables—B. G. Hutchner, 1120 Chelton Ave., Philadelphia, Pa., let contract to G. E. Swartz & Son for \$12,000 residence.

Fla., Daytona Beach—A. J. Abel, 284 N. Beach St., erecting hollow tile bungalow, Bay St., Daytona Highlands.

Fla., Daytona Beach—Jas. G. Moore erect 2-story hollow tile residence, Ivey St., Daytona Highlands; work started.

Fla., Jacksonville—Mrs. E. V. Richison erect \$10,500 residence, Richmond St. near Van Wert St.; brick veneer, 2 stories; H. F. McAden, Contr., 3327 Riverside St.

Fla., Venice—G. W. Castle, Bldr., Miami, erecting residence, Edgewood section.

Ga., Atlanta—A. H. Bailey, Glenn Bldg., erect \$30,000 residence, Lullwater Rd.; brick veneer, 2 stories and basement, hardwood floors, slate roof, steam heat; Raymond C. Snow & Co., Archts., Bona Allen Bldg.; owner builds.

Ga., Griffin—Gresham Manufacturing Co., 222 N. Hill St., has contract to erect 5-room bungalow on Jackson Road for C. H. Kelley; two 5-room bungalows on E. Tinsley St. for Simon Slade; 5-room dwelling in Moore subdivision for Clara Dukes.

Ga., Griffin—Grady Hammock let contract to Robt. Whenton & Sons for 6-room bungalow on Jackson Road.

Md., Baltimore—Allen P. Miller, 166 E. 36th St., has permit to erect three 2-story frame dwellings and garages, n. w. cor. Grove and Central Ave.; cost \$9000, 22x25 ft., steam heat; Owner, Archt.-Bldr.

Md., Baltimore—J. H. Chaney, 2421 W. Lafayette Ave., erect \$10,000 residence, 2405 Lake Ave.; 1½ stories, 26x52 ft., slate roof, hot water heat; C. C. Gebb, Archt.; G. A. Gebb, Contr., Mayfield and Crosland Aves.

Md., Baltimore—Milton R. Lerch, 5706 Harford Rd., erect 4 frame dwellings and garages, 3013-19 Northern Pkwy.; 1½ stories, 26x28 ft. and 20x20 ft., slate roofs, hot water heat; total cost \$13,500; Geo. Wessel, Archt., 601 W. 40th St.; owner builds.

Mo., Kansas City—Dr. J. A. McDonald, Waldheim Bldg., erect 2 brick and stucco duplexes, 5229-35 Rockhill Rd.; 2 stories, 16x55 ft.; owner builds.

Mo., St. Louis—S. Rickler, 4403 Virginia Ave., erect \$10,000 residence, 4400 Alaska Ave.; brick, 2 stories and basement, 36x31 ft., hardwood floors, asphalt shingle roof, tile bath, furnace; A. Winge, Archt., 3700 Bamberger Ave.; C. H. Fischer & Co., Contrs., 3414 Gasconade Ave.

Mo., St. Louis—Daniel J. Kervin, 5927 Waterman St., let contract to E. A. Brunson Constr. Co., Parkway Exchange Bldg., for \$40,000, 2-story, 40x70 ft., reinforced concrete and brick residence, Southmoor, St. Louis County; wood and tile floors, vitrified brick foundation, slate roof; Trueblood & Graf, Archts., 1520 Chemical Bldg. See Want Section—Building Material and Equipment.

Mo., St. Louis—Theo. Wetterau, 3658 Dover Place, let contract at \$19,040 to Gruenewald Construction Co., 3042 Arsenal St., for brick residence, Holly Hills; 2 stories and basement, 35x43 ft., oak floors, concrete foundation, cut stone trim, slate roof; Helfensteller, Hirsch & Watson, Archts., 1501 Chemical Bldg. 12-15

N. C., Gastonia—East Baptist Church, Rev. T. L. Cashwell, Pastor, let contract to J. L. Alexander for \$10,000 parsonage, S. Columbia St.

Okla., Tulsa—Roy Lundy, care Tulsa Rig

& Reel Co., Atlas Life Bldg., erect \$26,000 residence, 1370 E. 25th St., Sunset Terrace; 2 stories and basement, 10 rooms, 3 baths; J. E. Stegall, Contr.

S. C., Johnston—S. J. Watson erect frame residence; 2 stories, 72x60 ft., hardwood floors, brick foundation, slate roof; Chas. C. Wilson, Archt., Palmetto Bldg., Columbia; plans complete; day labor. See Want Section—Building Material and Equipment.

Tenn., Chattanooga—W. H. Lancaster let contract to Roy Colston for \$10,000, 2-story, brick dwelling.

Tenn., Johnson City—Happy Valley Homes, Inc., Folsom B. Taylor, Sec.-Treas., erect number Sawyer process interlocking cement block dwellings; 1 under construction.

Tex., Brownsville—George Aziz let contract to W. A. Volten for \$10,000 7-room, hollow tile and stucco Mediterranean type dwelling; Wm. D. Van Sicien & Co., Archts.

Tex., Del Rio—John J. Foster remodel residence; 2 stories, frame and stucco, cost \$10,000; Albaugh & Steinbomer, Archts., 941 Austin St.; owner builds.

Tex., Edcouch—J. A. Marsh started work on 10 dwellings for W. E. Lewis; cost \$20,000.

Tex., Houston—J. C. Leonard, Esperson Bldg., erect \$30,000 Colonial residence, Calumet Drive near Live Oak St.; brick veneer, 2 stories, 10 rooms; L. W. Lindsay, Contr., Second Nat'l Bank Bldg.

Tex., Houston—Wm. I. Shotwell, River Oaks Blvd., let contract to A. E. Scott for \$22,000, 2-story and basement brick veneer residence in Crescent Island near Riverside; 10 rooms, tile roof.

Tex., Houston—Mrs. O. Meyer erect \$13,000 duplex, 4720 La Branch St.; brick veneer, 2 stories, 12 rooms, 2 baths; O. A. Fridh, Contr., 2217 Brun St.; work started.

Tex., Laredo—Santiago Pappas let contract to Alamo Lumber Co. for first 6 of 80 dwellings, San Bernardo Addition north of Liberty Park; cost \$4000 to \$5000 each. 12-8

Tex., San Angelo—J. W. Smyth erect five brick veneer residences; three on W. Avenue I and two on Tyler St.; cost \$16,500; owner builds.

Tex., San Antonio—G. and C. Hagelstein, 406 E. Travis St., started to work on \$15,000 dwelling, Broadway Drive near Woodlawn Ave.; also \$13,500 Spanish type stucco dwelling, both Woodlawn Hills.

Va., Richmond—City Building Corp., Builders Exchange, erect 3 dwellings, Westover Hills; C. W. Huff, Archt., 1316 Bellevue Ave. 12-15

Government and State

D. C., Washington—National Radiator Co., 2205 Fifth St. N. E., has column radiator contract for \$200,000 addition to Liberty Loan Bldg.; Skinner & Garrett, Contrs., 1416 F St. N. W. 10-13

D. C., Washington—Treasury Dept., J. A. Wetmore, Act. Supervising Archt., let contract at \$77,500 to English Construction Co., Inc., 1311 H St. N. W., for excavation for \$2,000,000 central wing of Department of Agriculture building and relocation of heating tunnel for central wing; Rankin & Kellogg, Archts., 1805 Walnut St., Philadelphia, Pa.; Edw. H. Bennett, Consult. Archt., 80 E. Jackson Blvd., Chicago, Ill. 2-17

Md., Jessup—Davis Construction Co., Contr., 9 W. Chase St., Baltimore, let following subcontracts for central cell wing House of Correction, for which they have general contract at \$229,750: Brick work, Frank Downing, 2402 Erdman Ave.; granite-cut stone, Seymour Ruff & Sons, 2133 Maryland Ave.; millwork, Heise & Bruns Mill Co., 600 S. Caroline St.; reinforced bars, misc. steel, Dietrich Bros., Davis and Pleasant Sts.; slate roofing, Lawrence Lubbers Co., 12 W. Madison St.; steel sash, Detroit Steel Products Co., 322 N. Charles St.; hardware, Hubbard & Engleston, 120 W. Baltimore St.; Kalamain doors, Brauns & Graham, 509 N. Charles St.; vault door, York Safe & Lock Co., 7 W. Redwood St.; Alberene stone, American Tile & Cement Co., 27 W. North Ave., all Baltimore; composition flooring, Special Service Flooring Co., Grand Central Terminal, New York; Theo. Wells Pietsch, Archt., Hearst Tower Bldg., Baltimore. 10-6

Mo., St. Louis—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., let contract to Ernest George Lay, Inc., 5473 N. Kingshighway Blvd., for mezzanine floors in workroom, post office; glassware, Ivanhoe Div., Miller Co., 5716 Euclid Ave., Cleveland, Ohio. 10-13

N. C., Dunn—E. F. Young started work on armory for Headquarters Co., 113th Field Artillery, National Guard.

Tenn., Tullahoma—Tennessee National Guard, Nashville, let following contracts aggregating \$23,000 for work at Camp Peay: Baths and latrines, Builders Supply Co.; lighting system, John Marlin; transportation shed, Tullahoma Cabinet Co., all Tullahoma; concrete floors, W. L. Alexander, Nashville. 12-15

W. Va., Williamson—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., let contract at \$149,718 to Virginia Engineering Co., Inc., First Natl. Bank Bldg., Newport News, Va., for post office and courthouse; cost \$250,000. 12-1

Hospitals, Sanitariums, Etc.

Ark., Hot Springs National Park—Leo. N. Levi Memorial Hospital erect fourth floor addition for children's ward and chapel; brick and steel, cork tile floors, sained glass windows; Eugene John Stern, Archt., A. O. U. W. Bldg., Little Rock; J. P. Jones, Contr. 12-15

Ga., Augusta—Augusta Lumber Co., 903 Eighth St., has millwork and lumber contract for \$150,000 nurses' home, University Hospital; brick and tile, Merry Bros., Marian Bldg., and Georgia-Carolina Brick Co., Southern Finance Co. Bldg.; plumbing and heating, Dobson Plumbing & Heating Co., 612 Broad St.; electrical work, Eve Repair Co., 852 Chapu Ave.; roofing and sheet metal work, Augusta Roofing & Metal Works, 529 Broad St., all Augusta; struct. steel and orn. iron, Decatur Steel & Iron Works, Atlanta; rein. steel, Connors Steel Co., Empire Bldg., Birmingham, Ala.; Scroggs & Ewing, Archts., Southern Finance Co. Bldg.; W. C. Spiker & Co., Engrs., Forsyth Bldg., Atlanta; H. B. Nelson Construction Co., Contr., Coral Gables, Fla. 12-8

La., New Orleans—Geo. F. Kroehl & Co., Southern Bldg., has caulking contract for \$200,000 James M. Batchelor Bldg., Presbyterian Hospital; elevators, Otis Elevator Co., 852 Carondelet St.; granite and marble, Albert Weiblen Marble & Granite Co., 521 City Park Ave., New Orleans; all orn. iron, Decatur Iron & Steel Co., Decatur, Ala.; Rathbone DeBuss Archt.; Thos. H. Brockman, Contr., both Hibernia Bldg. 12-15

N. C., Wrightsville Sound—Babies Hospital, Inc., erect \$90,000 hospital; fireproof, 3 stories, 100x130 ft., cement floors, concrete foundation, tile and built-up roof; C. C. Hartmann, Archt., Greensboro; Geo. W. Kane, Contr., Greensboro and Roxboro. See Want Section—Building Material and Equipment. 12-15

Tex., Beaumont—Dr. A. D. Mann, Dr. J. N. Gardner, both Perlstein Bldg., and others, erect additional story to \$84,000 fireproof hospital under construction; total cost \$160,000, 3 stories and basement; Phelps & DeWees, Archts., Gunter Bldg., San Antonio; Herman Weber, Contr., Perlstein Bldg.; concrete work completed for 2 stories. 10-6

Tex., Dallas—City voted \$400,000 bonds for additions to Parkland Hospital and other city-county hospitals and improvements to hospital grounds. See City and County.

Hotel and Apartments

Md., Baltimore—Samuel H. Hoffberger, 529-31 Calvert Bldg., let contract to Henry A. Knott & Co., 2107 N. Charles St., for \$50,000, 70x90-ft., 3-story, brick apartment house at 3401 Powhatan Ave.; 12 housekeeping suites; Stone & Ganter, Archts., Munsey Bldg. 12-5

Mo., Kansas City—William D. Snyder, 817 Commerce Bldg., started work on two 9-story, 42x109-ft. apartment hotel buildings, Linwood Blvd. at Troost Ave.; reinforced concrete frame, brick walls and terra cotta, rock foundations, slab flooring, composition roofing; equipment and furnishings cost \$150,000; Phillip T. Drotts, Archt., Reliance Bldg.; owner builds. See Want Section—Building Materials and Equipment. 12-8

Mo., St. Louis—Charlason & Co., 105 S. Ninth St., erect three 2-story, 31x45-ft. brick tenements, 2108-18 Geyer St.; tar and gravel roofs, hot air heat, \$30,000; owners are Archts.-Builders.

Mo., St. Louis—H. Specter, Arcade Bldg., let contract to J. Rubin, 904 Chestnut St., for \$50,000, 3-story, 42x168-ft., brick tenement at 5624 Lindell Blvd.; composition slate roof, steam heat.

Mo., St. Louis—A. E. Dinkelkamp, 4591 Kennerly St., erect \$10,000, 2-story, 24x43 ft., brick tenement, 5048 Miami St.; composition shingle roof, furnace heat; General Building Corp., Archts.-Builders.

Mo., St. Louis—Laclede Steel Co. received contract for 600 tons structural steel for 13-story addition to New Jefferson Hotel; Boaz-Kiel Construction Co., Contr., 409 N. Seventh St. 10-20

Mo., St. Louis—Harry Spector let contract

to Jacob Rubin & Sons, 904 Chestnut St., for \$350,000, 4-story, 42-family apartment building, Lindell Blvd. east of Euclid Ave.; 3, 4 and 5-room efficiency suits on 3 floors, first floor French basement.

Tex., Beaumont—J. E. Mayer let contract to T. F. Smith for \$25,000, 2-story, brick veneer, 12 four-room apartment house at Broadway and Fifth St.; Livesay & Wiedemann, Archts., San Jacinto Life Bldg.

Tex., Coleman—Mrs. P. O. Reynolds started work on 2-story, frame, 32x36 ft. residence and 2-apartment house on Concho St.

Tex., Houston—A. R. Anderson let contract to J. L. Tryon, 1105 Truxilla St., for \$25,500, 2-story, brick veneer, 8-apartment house at 13166 Alabama St.

Tex., San Antonio—C. D. Black, 604 Lullwood Ave., let contract to American Building Co., 1615 W. Kings Highway, for \$18,000, 2-story, 28-room, frame and stucco apartment building.

Va., Norfolk—Mrs. W. V. H. Williams, 4805 Colonial Ave., started work on \$15,000, 2-story, semi-fireproof, 40x80 ft., 3-family apartment house at 4809 Colonial Ave.; concrete foundation, oak floors, slate roof; hot water heating and plumbing to Wilson & Co., Grayden Ave.; electric work, Bradley-Duffee Electric Co., City Hall Ave.; plastering, W. T. Crump, Virginia St.; roofing and sheet metal work, A. C. Dyer Co., 318 W. 24th St.; painting, H. C. Harding, 617 Delaware Ave.; Philip B. Moser, Archt., Law Bldg.; Johnson Construction Co., Inc., Contrs., 601 Law Bldg. 12-15

Va., Richmond—Wise Granite & Construction Co., Inc., Lee Paschall, Vice-Pres., American Natl. Bank Bldg., advises: "Richmond Hotels, Inc., have purchased piece of property 155x163 ft. at cor. Fifth and Franklin Sts., for purpose of erecting thereon a city hotel of approx. 400 rooms, with stores, convention hall, ballroom, roof garden, etc.; real estate, building and furniture cost approx. \$2,500,000; Marcellus E. Wright, Archt., American Natl. Bank Bldg., has been authorized to proceed with plans; we, no doubt, will proceed with construction when plans are completed." 12-15

Miscellaneous

Ga., Albany—Empire State Development Co. erecting \$37,500, 1-story, frame, 80x40 ft. clubhouse at Radium Springs; address equipment proposals to Thad Huckabee; John Law Kerr, Archt.; owners build. 12-8

Miss., Laurel—Women's Club let contract to Mr. Warren, for erecting Community Kitchen.

N. C., Raleigh—Methodist Orphanage, Hon. R. N. Page, Chmn. of Board, erecting dormitory and residence; \$55,000, 1 and 2 stories, fireproof, brick, hardwood rift pine floors, brick foundations, equipment and furnishings cost \$10,000; hot water heating to W. H. Bond & Co., Inc., 404 W. Davis St.; plumbing, Blemann & Rowell, 117 W. Morgan St.; electric work, Walsh & Carter; H. P. S. Keller, Archt.; Jewell & Riddle, Contrs., Sanford. 12-15

Schools

D. C., Washington—District Commissioners, Room 509 District Bldg., let contract to John B. Glinesch, Inc., 1627 Connecticut Ave. N. W., for 8-room addition and combination gymnasium and assembly hall and alterations to Barnard School. 11-24

Ga., Milledgeville—Georgia State College for Women started work on 3-story, brick, 300-room building.

Ga., Waynesville—Waynesville Consolidated School District, J. W. Pearson, Sec.-Treas., Board of Trustees, let contract to Larkins & Barbour, Folkston, for \$14,000 brick school building. 11-24

La., New Orleans—St. Joseph's Abbey let contract to J. A. Pettv & Sons, Inc., Godchaux Bldg., for \$64,900 school building, St. Bernard Ave.; Wm. R. Burk, Archt., Balter Bldg.

Md., Baltimore—Morrow Brothers, Inc., Contrs., 1201-3 Fidelity Bldg., let following sub-contracts on \$70,000 Gymnasium Building and Cage, Gillman Country School for Boys on Roland Ave.: Structural steel, ornamental and miscellaneous iron, Dietrich Brothers, 220 Pleasant St.; heating, plumbing and electrical work, Riggs, Distler & Co., Inc., 216 N. Calvert St.; millwork, Lafayette Mill & Lumber Co., Lafayette Ave. and P. R. R.; plastering, D. S. Schaffer Co., Inc.; metal windows, Campbell Metal Window Corp., 200 Scott St.; Taylor & Fisher, Archts., Union Trust Bldg. 12-15

N. C., Leaksville—Rockingham County Board of Education, Wentworth, let contract to J. R. Owen & Co., 1006 W. Lee St., Greensboro, for \$35,000, 1-story, brick, 184x52-ft.

school building; gum flooring, cement footings foundation, Barrett roof; electric work to Michael Bivens Electric Co., Greensboro; J. W. Hopper, Archt. 12-15

N. C., Raleigh—North Carolina State College let contract to George P. Rose, Goldsboro, for School of Engineering building; brick and concrete, built-up roof, wood and concrete floors, stone trim, structural steel frame, tile, concrete, wood and terrazzo floors; contract for part of heating to W. W. Dick, 246 Bellmeade St., Greensboro; Hobart Upjohn, Archt., Grand Central Terminal, New York, and Ross Shumaker, Asso. Archt., 14 Enterprise St., Raleigh. 12-8

Tex., Arlington—R. F. Ball Construction Co., Fort Worth, placing footings for \$110,000, 3-story, 140x60 ft. Science Building, at North Texas Agricultural College; reinforced concrete skeleton, pan type floors, brick and tile curtain walls; concrete foundation, wood, cement and terrazzo floors, composition roof, equipment and furnishings cost \$10,000; electric work to J. M. Johnson & Co., 508 N. Akard St.; Eugene Davis, Archt., Central Bank Bldg.; R. O. Jameson, Engr., S. W. Life Bldg., all Dallas. 12-1

Tex., Brownsville—C. H. Myers, 1118 N. Main St., Houston, received contract at \$29,500, for desks, cabinets, etc., exclusive of auditorium and cafeteria equipment, for High School building; Phelps & Dewees, Archts., Gunter Bldg., San Antonio.

Tex., Dallas—City voted \$1,900,000 school bonds. Address Board of Education. 11-3

Tex., Longview—Beach Supply Co., Inc., Shreveport, La., received contract at \$12,500 for plumbing and heating in \$125,000 High School, for which Christy-Dolph Construction Co., Central Bank Bldg., Dallas, received Gen. Contr. 12-1

Stores

Ala., Tuscaloosa—R. A. Craighead, R. A. and W. W. Deal let contract to Skinner & Maxwell for rebuilding structure at Sixth St. and 25th Ave., recently burned.

Ark., Little Rock—Herman & McCain Construction Co., Reigler Bldg., has permit for \$32,108, 2-story brick business house at 423 E. Third St.

Fla., Bonifay—J. S. and W. W. Howell erecting business building at Waukesha and Virginia Sts.

Fla., Jacksonville—Atlantic Realty Syndicate erect 2 store buildings at S. W. cor. Union and Hogan Sts., \$25,000; Klutho, Cole & Cates, Archts., St. James Bldg.

Fla., Jacksonville—Phillip B. Vassiliou let contract to L. F. Barta Co., 1715 Walnut St., for \$21,000, 2-story, brick addition to store and apartment building, 827-39 Kings Road.

Fla., Leesburg—R. F. E. Cooke let contract to Scarborough & Miller for 45x102-ft., hollow tile and stucco mercantile building on Main St.

Ga., Waycross—H. C. Bunn let contract to T. J. Darling for 2-story, 82x65-ft., steel frame, brick walls, wood joists and rafters store building; concrete foundation, tar and gravel roof; Roy A. Benjamin, Archt.; N. W. Green, Engr., both Jacksonville, Fla. 12-8

Ky., Louisville—Webb-Clark Co., Contr., acquired property at 114-18 W. Chestnut St.; erect building for lease.

Okla., Oklahoma City—Owen & McWilliams let contract to C. E. Huffman for \$20,000 brick and tile store building at Walker and California Aves.

S. C., Spartanburg—Dr. S. B. Moore, Tupac, erecting \$10,000, 22x135 ft., 2-story store building on E. Main St.; steam heat, oak floors, tile and terra cotta front, 13 offices on second floor; Alken Carlisle, Archt., 106½ Kennedy Pl.

Tex., Dayton—Mrs. Dora Bozeman erecting store building; W. D. Haden Co. has contract for stone-tile; C. G. Curtis, Archt., Houston; A. L. Jacobs, Contr., Goose Creek.

Tex., Quitaque—S. J. Harlan erecting brick, tile and concrete building on Main St. for plumbing and tin shop.

Tex., San Antonio—J. E. Adams, 1651 W. Summit Place, let contract to R. C. Shane, Builders Exchange Bldg., for \$14,000, hollow tile and concrete store, 446 Porter St.

Va., Norfolk—Shulman Co., Inc., 200 Granby St., leased adjoining store at 206 Granby St., let contract to Thompson & Co., 857 W. 46th St., for alterations.

Theaters

Md., Baltimore—Community Theater Co., C. Edgar Wood, Hamilton Ave. and Harford Road, erecting \$35,000, 1-story, brick, 50x149-ft. theater building at 7 West Hamilton Ave.; steam heat; O. B. Wright, Archt.; owners build. 11-24

Tenn., Chattanooga—John Parks, Contr.,

has permit to demolish buildings at 626-28 Market St., with view to erecting \$250,000 theater for Reliance Investment Co., both Hamilton Natl. Bank Bldg.

Tex., Fort Worth—Dave O'Keefe, owner of Rialto Theater, remodeling.

Warehouses

La., Shreveport—A. L. Alexander let contract to J. M. Brown, 210 Milam St., for \$28,800, 1-story, brick building at 2514-16 Southern Ave.; Seymour Van Os, Archt., Merchants Bldg.

Miss., Columbia—Marion Wholesale Co. erecting warehouse and office building on Broad St.

Tex., Houston—Wald Transfer & Storage Co. let contract to T. B. Hubbard Construction Co. for \$180,000, 4-story, reinforced concrete and brick warehouse, Nance and Semmes Sts.

Big Use of Explosives in Peace Times.

J. Thompson Brown, general manager of the du Pont explosives department, Wilmington, Del., at its 125th anniversary on December 7 made some impressive statements showing the extent to which explosives enter into industrial and agricultural activities. He said that the du Pont Company is the largest manufacturer of commercial or blasting explosives in the world; its output for 1927 will be 207,000,000 pounds; its plant at Repauno, N. J., is the largest high-explosives plant in the world, being 1½ times the size of the next largest factory. At Moos, Iowa, the company also has the largest plant in the world for manufacturing black powder. Since the last general convention of the department, which was held in 1922, there have been produced at its plants a total of 1,020,000,000 pounds of different explosives, all used in peace-time commercial activities. During the World War the company made a total of 1,466,700,000 pounds of military explosives. Demands for industrial explosives are growing so fast that important expansions have been made during the last five years. In the Birmingham mining district the South now has a dynamite plant with a capacity of 15,000,000 pounds a year. Surplus military explosives have been converted to commercial uses by chemists and Government agents have let a contract for 67,000,000 pounds of the finished product called Pyrotol, which has been used under Government supervision for road construction and farm improvement. A plant is also being built at Birmingham to supply the company with nitric acid by the oxidation of ammonia. Another step of great importance is the production of a dynamite which will not freeze at any temperatures experienced in this country.

L. Sonneborn Sons Products in Great Number.

L. Sonneborn Sons, Inc., of New York city, whose Stormtight roofing is widely known and used, have a very extensive line of products, more than 50 in number, classified under nine general headings, such as Floor Treatments, Dampproofing and Waterproofing, Anti-Freeze and Accelerator for Concrete, Metal Polish, Painting (general), Technical Paints, Kaukit, Acid-Resisting and Exterior Factory Paints, and, finally, Stormtight Roofing. The Baltimore (Md.) office of the firm is at 513 West Lombard street and is under the charge of Henry Sonneborn, Jr. Among the products classified under the general headings, but not specifically named, are Asbestolite for sealing steel to prevent rust; Dustproofer for concrete and terrazzo; Enamels; Gypsum Size for sizing walls; Marine Paints; Metal Size for raw metal surfaces; Rubbing Varnishes, etc. The company has issued a considerable amount of trade literature, fully illustrated, covering separately each one of these products, and copies may be obtained on application to it or to any of its representatives.

WANT SECTION

THE CLASSIFICATIONS IN THIS SECTION ARE:

Machinery and Supplies

Under this heading are reported requests for data, prices and literature and information on machinery, supplies and miscellaneous materials of a wide variety.

Items in this department are published without charge and these columns are open for the publication of wants of all kinds relating to construction work, machinery, materials and supplies.

Building Materials and Equipment

This division comprises all classes and kinds of materials and equipment used in building and construction projects of every kind.

Bids Asked

Includes bids asked by U. S. Government, States, districts, municipalities, firms and individuals for machinery, materials, supplies and construction work.

Machinery and Supplies

Anchors (Galvanized Wrought Iron).—Charles Weitz Sons, 713 Mulberry St., Des Moines, Iowa.—Wants prices on galvanized wrought iron anchors.

Boiler.—W. M. Smith & Co. (Mchy. Dealer), Birmingham, Ala.—Wants 750 h.p. boiler complete with fittings, used equipment.

Cutting Machine.—T. J. Ray, Newland, N. C.—Wants machine to cut up birch brush from small twig up to an inch in diam.; machine similar to one used for cutting corn for silage only heavier or stronger.

Electrical Supplies and Appliances.—Dixie Electric Co., Inc., 100 J-K Magnolia Ave., Tampa, Fla.—Wants prices on electrical supplies and appliances.

Engine.—Hackley Morrison Co., Inc. (Mchy. Dealer), 204 N. Jefferson St., Richmond, Va.—Wants 100 h.p., 12x36 Corliss engine.

Ferrules, etc.—Maddox Foundry & Machine Co., Archer, Fla.—Wants to purchase quantity of ferrules; also correspond with manufacturers of hoes, rakes, spades, shovels, etc.

Galvanizing Equipment.—Charles Weitz Sons, 713 Mulberry St., Des Moines, Iowa.—Wants data and prices on equipment for galvanizing wrought iron anchors.

Metal Parts.—Simmons Glare Shield Co., Inc., Eldon, Mo.—Wants to contract for manufacture of small metal parts used in connection with patented glare shield; prefer manufacturers located in St. Louis, Kansas City, Chicago, or Cincinnati.

Motor.—V. M. Nussbaum & Co., Fort Wayne, Ind.—Wants 50/60 h.p., 600 rpm, 220 volt, 3 phase, 60 cycle, squirrel cage type motor, with starter only.

Water Works.—Town of Mooreland, Okla. Omer Schnobelen, E. C. Jones & Co., Engrs., Enid, will install water works and sewer system and wants the following:

- (1) Hydrants
- (2) Motor (electric)
- (3) Pump
- (4) Pipe (12-in. sewer)
- (5) Pipe (cast iron)—6, 4 and 2-in.
- (6) Disposal Plant (Imhoff.)

Woodworking Outfit.—Orien L. Roark, Editor, The Record, Greenville, Ky.—Wants combination set for making and repairing furniture, fancy pieces, etc.; correspond with manufacturers.

United Tale & Crayon Co., Inc., A. L. Luff, Pres., Glendon, N. C. wants prices on the following for installation in plant now under construction:

- (1) Air Compressors—for drilling
- (2) Belting
- (3) Cableway
- (4) Dynamo for electricity
- (5) Elevators—for drilling and for deep mining, with gas or oil burning engine
- (6) Engine—gas or oil burning, 150 h.p.
- (7) Screen—for screening talc.

Miscellaneous

Nut (Pecan) Cracker.—Roy C. Hinds, Sec., Chamber of Commerce, Picher, Okla.—Wants small power nut cracker for pecans, correspond with manufacturers.

Fencing (Galvanized).—Brenner and Michaelson, 505 Brook Ave., Richmond, Va.—Wants from 2,000 to 3,000 ft. of good heavy galvanized fencing, no lower than 6-ft. and no higher than 10 ft., suitable for children's playground; state condition, price, etc., new or used.

Gymnasium and Stage Equipment.—Thomas E. Crane, Clerk, Allendale Centralized High School, Allendale, S. C.—Wants prices on gymnasium and stage equipment, principally for basket ball.

J. W. Bell, Paragould, Ark.—Wants to correspond with manufacturers of following:

- (1) Benches—piano
- (2) Glassware, colored novelty.

Tires.—Montgomery Bus Lines, Inc., Rockville, Md.—Wants prices on tires.

F. Jeter, Archer, Fla.—Wants to contract for manufacture of patented grass cutter, make in large quantities.

V. Phenix, Box 136, Greeley, Colorado, wants to correspond with manufacturers of following:

- (1) Shafts
- (2) Spring Motors
- (3) Stock Gears.

Building Material and Equipment

Morton Realty Co., J. S. Morton, Pres., 135 N. Lime St., Lexington, Ky. wants prices on material for building of houses and for improving of subdivision.

Geo. W. Kane, Contr., Greensboro, N. C. wants prices on following for \$90,000 Babies Hospital, Wrightsville Sound, N. C.:

Cast Stone
Dumb Walters
Inclinator
Roofing—tile
Tile—gypsum, hollow.

Chas. C. Wilson, Archt., Palmetto Bldg., Columbia, S. C. wants prices on following for frame dwelling, Johnston, S. C.:

Flooring—hardwood, linoleum, tile
Limestone
Roofing—slate.

M. F. Giessey, Archt., Riley Law Bldg., Wheeling, W. Va. wants prices on following for \$20,000 building for Bank of Farmington:

Flooring—marble
Marble
Roofing—composition
Terra Cotta Trim
Vaults.

W. D. Snyder, owner and builder, 817 Commerce Bldg., Kansas City, Mo. wants prices on following for two 9-story apartment hotel buildings, cost \$500,000:

Cast Stone
Electric Refrigerators
Elevators
Flooring—composition, linoleum, terrazzo and tile
Metal Ceilings and Doors
Roofing—built-up and tile
Tile—gypsum, hollow and interior
Terra Cotta Trim.

Trueblood & Graf, 1520 Chemical Bldg., St. Louis, Mo. wants prices on following for \$40,000 residence:

Flooring—hardwood, linoleum, tile
Roofing—slate.

Herbert L. Cain, Archt., Grace Securities Bldg., Richmond, Va. wants prices on following for \$160,000 church building, Petersburg:

Cast Stone
Flooring—tile, composition
Metal doors
Rolling partitions
Slate
Vaults
Vault lights.

D. N. Leaverton, Contr., Lubbock, Texas, wants prices on following for \$105,000 hotel at Paducah, Texas:

Cast Stone
Concrete Tile (5x8x12 in.)
Electric Refrigerators
Flooring—linoleum, terrazzo and tile
Metal Doors
Roofing—built-up
Tile—gypsum.

B. M. Morgan, of Korn & Morgan, Asso. Archts., San Angelo Natl. Bank Bldg., San Angelo, Tex. wants prices on following for two \$300,000 Bank and office buildings, San Angelo and Pampa, Tex.:

Cast Stone
Electric refrigerators
Elevators
Flooring—hardwood, terrazzo, tile
Limestone
Mail Chutes
Marble
Metal doors
Roofing—built-up
Steel sash and trim
Tile—hollow
Vaults
Ventilators
Wire glass.

Bids Asked

Beacons.—Division of Supplies, Department of Commerce, Washington, D. C.—Receives bids Dec. 27 for 100 rotating search-light beacons.

Brick.—See Storm Drainage.

Bridge.—C. B. Jones, Ormond, Fla. See Construction News—Bridges, Culverts, Viaducts.

Bridge.—State of Texas. See Construction News—Roads, Streets, Paving.

Bridge Abutment.—City Commrs., H. H. Fielder, Clk., Huntington, W. Va.—Receives bids Jan. 3 for re-inforced concrete wall for east abutment of Robey Road Bridge, over Guyan River; plans from A. B. Maupin, City Engr.

Clay-Gravel.—Sylvan J. Ladner, Secy., City of Bay St. Louis, Miss.—Receives bids Dec. 28 for clay-gravel by car load lots of seven cars, f. o. b. Bay St. Louis.

Cleaning Ditches.—Commrs. of Grand Marais Drainage Dist., Office of Sec., Chas. E. Elber, Jennings, La.—Receives bids Dec. 29 for cleaning certain ditches of Jefferson Davis Parish; Merrill Bernard, Engr., Crowley, La.

Clothing.—Depot Quartermaster, Marine Barracks, Quantico, Va.—Receives bids Dec. 27 for civilian clothing for 6 months period beginning Jan. 1.

Cotton Waste.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Dec. 23 to furnish 4,000 lbs. cotton waste, delivery Quantico, Va. Sch. 327.

Dishwashing Machine.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Jan. 4, 1928, to furnish one 2 tank dishwashing machine; delivery Norfolk, Va. Sch. 331.

Drainage.—Coahoma County Drainage Commrs., Clarksdale, Miss.—Receives bids Jan. 3, 1928, for certain enlargement work in Hopson Bayou drainage district amounting to about 95,000 cu. yds., length of ditch about 5 or 6 miles; plans with L. W. Mashburn.

Dredging.—Commrs. of Mecklenburg County Drainage Dist. No. 11, Jas. R. Alexander, Chrmn., Charlotte, N. C.—Receives bids Dec. 29 for 6¼ mile dredge ditch on McMichaels creek, contain approximately 120,469 cu. yds. excavation; Will D. Alexander, Engr., 217 Johnston Bldg.

Dredging Pipe and pontoons.—Mississippi River Comsn., Memphis, Tenn.—Receives bids Jan. 3 for 80 steel pontoons and 40 lengths steel pontoon pipe.

Drugs.—U. S. Veterans Bureau, Supply Div., Washington, D. C.—Receives bids Dec. 23 to furnish following: 50 bot. elixir iron; 150 bot. aromatic ammonia; 350 bot. milk magnesia; 1300 bot. hydrogen peroxide solution, etc.

Electric Pump Control.—Board of City Commrs., Plant City, Fla.—Receives bids Jan. 2 for installation of an automatic electric control system on the 600 gal. pump now in use at city water works, also for repairing and overhauling of above pump.

Electric Range.—U. S. Veterans Bureau, Supply Div., Washington, D. C.—Receives bids Dec. 30 for electric range, right hand oven.

Electric Range.—U. S. Veterans Bureau, Supply Div., Washington, D. C.—Receives bids Dec. 28 for electric range.

Electrical Ranges and Heaters.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Dec. 30 to furnish 14 electrical ranges and 8 heating units; delivery Philadelphia, Pa. Sch. 329.

Electric Supplies.—Quartermaster, Marine Corps, Philadelphia, Pa.—Receives bids Dec. 29 for 2-way plys, switchboard cords, electric soldering irons, telephone protectors, sulphuric acid, etc.

Electric Supplies.—Quartermaster, Marine

Corps, Washington, D. C.—Receives bids Dec. 28 for lighting fixtures, flush plates, switches, etc.

Electrical Supplies.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Feb. 29 to furnish electrical supplies, delivery Quantico, Va. Sch. 323.

Excavating, etc.—F. A. Woods, Sec., Police Jury, East Baton Rouge, Baton Rouge, La.—Receives bids Jan. 10, 1928, for about 20,000 cu. yds. excavation and clearing in Baker canal, repairing bridges, etc.

Furniture.—Purchasing Agt., Post Office Dept., Washington, D. C.—Receives bids Jan. 4 for furniture for Germantown station post office.

Gasoline.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Dec. 27 to furnish gasoline, etc., various deliveries; Sch. 334.

Gasoline and Kerosene.—U. S. Engr., Galveston, Tex.—Receives bids Dec. 27 for gasoline and kerosene.

Gravel.—Winnfield, La. See Construction News—Roads, Streets, Paving.

Hardware, etc.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Jan. 4, 1928, to furnish hardware, etc.; delivery Philadelphia, Pa. Sch. 322.

Liquid Cement.—Quartermaster, 21st St. and Oregon Ave., Philadelphia, Pa.—Receives bids Dec. 23 for 2000 cans liquid cement.

Lumber.—Nassau County Commrs., G. C. Burgess, Clk., Fernandina, Fla.—Receives bids Dec. 24 for standing quotations, good until Sept. 30, 1928, on such quantity and sizes of lumber as county may need for bridge building within said period.

Mattresses.—U. S. Veterans Bureau, Supply Div., Washington, D. C.—Receives bids Dec. 29 for mattresses.

Metal Furniture.—Charles E. Gross, Dallas County Auditor, Dallas, Tex.—Receives bids Jan. 9, 1928, for metal furniture; Lang and Wittich, Archts., American Exchange Bank Bldg.

Mineral Salt.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Dec. 28 to furnish about 350 tons mineral salt, delivery f. o. b. producers plant. Sch. 330.

Miscellaneous.—Depot Quartermaster, Marine Corps, Philadelphia, Pa.—Receives bids Jan. 4 for the following; Sch. 323:

Emergency cloth, glass cutters, portable forges, hacksaw frames, sledge handles, hoes, carpenter's pencils, manilla rope, fence staples, jute twine, nail pullers.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, Gen. Purchasing Officer, Washington, D. C.—Receives bids Dec. 28, Sch. 2451, for following:

Malleable iron elbows, combination punch and shear, bolt taps, tacks, coat hooks, engineers' wrenches, smoothing planes, check valves, etc.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Receives bids Dec. 23 for following; Clr. No. 1847:

Steel, cable, panel boards, electric stoves, cluster bodies, cable terminals, stuffing tubes, marine fixtures, detachable plugs, sockets, switches, rail-joint insulations, mica, hard fiber, rubber tape, locks, burial caskets, connecting links, carbon paper, etc.

Motor Oil.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Dec. 29 to furnish 3000 gal. motor oil; delivery Port Royal, S. C. Sch. 335.

Oil (Road).—Quartermaster, Ft. Eustis, Va.—Receives bids Dec. 23 for 14,000 gals. road oil.

Paints.—U. S. Shipping Board, Washington, D. C.—Receives bids Jan. 4 for ship's bottom paint for a 6 or 12 months period, beginning Feb. 1.

Paving.—Maplewood, Mo. See Construction News—Roads, Streets, Paving.

Paving.—Covington, La. See Construction News—Roads, Streets, Paving.

Pipe.—Chemical Warfare Service, Edgewood Arsenal, Md.—Receives bids Dec. 28 for wrought steel pipe.

Pipe.—Rinley, Miss. See Construction News—Roads, Streets, Paving.

Pipe (Cast Iron).—See Storm Drainage.

Pipe, etc.—Lake Charles Harbor and Terminal Dist. Commrs., Lake Charles, La.—Receives bids Dec. 2 for 750-ft. class D, 8-in. waterwork pipe; four 6-in. two stream class D fire hydrants, two 45 degree 8-in. elbows, 11n. ft. 3-in. and 200 11n. ft. of 2½-in. galvanized pipe, six 2½-in. Underwriters gate valve hose connections; Elmer E. Shutts, Engr., 921½ Ryan St., Lake Charles.

Pumps.—Mississippi River Comsn., Memphis, Tenn.—Receives bids Jan. 3 for one 18 and one 20-in. single suction dredging pump.

Pumping Stations.—Board of Awards, Baltimore, Md., Edw. G. Rost, Water Engr.—Receives bids Dec. 28 for furnishing and erecting substructure and superstructure, placing roadway, grading grounds, etc. for Catonsville automatic pumping station.

Pumping Unit.—District Commrs., Washington, D. C.—Receives bids Dec. 22 for electric motor driven centrifugal unit for use at Reno pumping station.

Refrigerating Units.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Jan. 4, 1928, to furnish and install 2 mechanical refrigerating units at Charleston, S. C. Sch. 332.

Road.—DeLand, Fla. See Construction News—Roads, Streets, Paving.

Road.—Baton Rouge, La. See Construction News—Roads, Streets, Paving.

Road.—Donaldsonville, La. See Construction News—Roads, Streets, Paving.

Road.—Hahnville, La. See Construction News—Roads, Streets, Paving.

Road.—Winnfield, La. See Construction News—Roads, Streets, Paving.

Road.—Alexandria, La. See Construction News—Roads, Streets, Paving.

Roads.—State of Florida receives bids for 3 roads. See Construction News—Roads, Streets, Paving.

Roads.—Beaton, La., receives bids for 2 roads. See Construction News—Roads, Streets, Paving.

Roads.—State of Texas receives bids for 2 roads. See Construction News—Roads, Streets, Paving.

Roads.—Ripley, Miss., receives bids for 2 roads. See Construction News—Roads, Streets, Paving.

Roads.—Birmingham, Ala. Receives bids for 9 roads. See Construction News—Roads, Streets, Paving.

Roads.—State of Texas receives bids for 5 roads. See Construction News—Roads, Streets, Paving.

Roads.—Director of U. S. Veterans Bureau, J. Ernest Price, Acting Chief, Construction Division, Room 791, Arlington Bldg., Washington, D. C.—Receives bids Jan. 17 for concrete roads at U. S. Veterans' Hospital No. 90, Muskogee, Okla.; plans on file and from Medical Officer in charge at U. S. Veterans' Hospital No. 90.

Roads, etc.—Director of U. S. Veterans' Bureau, J. Ernest Price, Acting Chief, Construction Division, Room 791, Arlington Bldg., Washington, D. C.—Receives bids Jan. 10 to build and complete roads, walks and grading, at U. S. Veterans' Hospital No. 62, Augusta, Ga.; plans on file and from Supt. of Construction, U. S. Veterans' Hospital No. 62, Augusta.

Sewers.—City of Irvine, Ky., J. R. White, Clk.—Receives bids Jan. 24 for constructing sanitary sewer system.

Sidewalks.—Miami, Fla. See Construction News—Roads, Streets, Paving.

Spray Painting Outfit.—U. S. Veterans Bureau, Supply Division, Washington, D. C.—Receives bids Dec. 22 for portable motor-driven pneumatic spray painting outfit.

Steel Dressers.—U. S. Veterans Bureau, Supply Div., Washington, D. C.—Receives bids Dec. 30 for 4 steel dressers.

Steel Fixtures.—J. A. Escalada, El Paso County Auditor, Court House, El Paso, Tex.—Receives bids Dec. 27 for steel fixtures for book section and document file section, to be delivered in County Clerk's vault and set up.

Storm Drainage.—City of Cartersville, Ga., H. C. Nelson, Mayor, Knox T. Thomas, Engr., 611 McGlawn Bldg., Atlanta.—Receives bids Dec. 22 for furnishing materials, equipment, etc., for storm drainage; work includes catch basins, 1750 cu. yds. trenching and backfilling; 20,300 brick in catch basin; 16,000 lbs. cast iron; 795 ft. 15-in., 775 ft. of 18-in., 770 ft. 21-in., 300 ft. of 24-in. and 25 ft. of 30-in. pipe.

Street.—Cartersville, Ga. See Construction News—Roads, Streets, Paving.

Street.—Baltimore, Md. See Construction News—Roads, Streets, Paving.

Street Lighting Units.—Volusia County Toll Bridges, S. P. Sweatt, Supt., 114 Sams St., New Smyrna, Fla.—Receives bids Dec. 31 for installation of street lighting units on South Bridge, leading from Orange Ave. to Silver Beach Ave., in City of Daytona Beach, Fla.

Street Signs.—A. J. Hawkins, City Engr., Birmingham, Ala.—Receives bids Jan. 24, 1928, to furnish approximately 350 complete street signs, 5½x20-in.; type generally known as the "Criss Cross" 30-C as manu-

factured by the Municipal Street Sign Co., Inc., New York City; delivered f. o. b. Birmingham.

Sulphuric Acid.—Board of Awards, office City Register, Baltimore, Md.—Receives bids Dec. 28 to furnish sulphuric acid to bureau water supply; Edward G. Rost, Water Engr.

Surveying Instruments.—Division of Supplies, Department of Commerce, Washington, D. C.—Receives bids Dec. 30 for surveying instruments.

Tags.—Post Office Dept., Purchasing Agt., Washington, D. C.—Receives bids Jan. 4 for 200,000 parcel post tags.

Tank (Oil Storage), etc.—U. S. Veterans Bureau, Supply Div., Washington, D. C.—Receives bids Dec. 29 for 2 lubricating oil storage tanks and 2 recording meters.

Towboat.—Inland Waterways Corp., Munitions Bldg., Washington, D. C.—Receives bids Jan. 15 for steel, steam twin-screw towboat of 1000 h.p. for use on Warrior River.

Waste.—Depot Quartermaster, Marine Corps, Philadelphia, Pa.—Receives bids Dec. 29 for 30,000 lbs. cotton waste.

Water Circulating System.—Ch. Bureau of Yards and Docks, Navy Dept., Washington, D. C.—Receives bids Jan. 4 for water circulating system at naval radio station, Arlington, Va.

Trade Literature

Two New Sullivan Bulletins.

Two new bulletins have lately been issued by the Sullivan Machinery Company of Chicago. One of them gives descriptions and pictures of the Baby Turbinair Drill, which is intended primarily for underground mineral prospecting where short holes are desired for blocking out ore bodies, as well as for other related work. Their action is very smooth. The other bulletin, which is equally complete, gives full particulars about the Bravo 300 Drill, which, it is remarked, has been used by engineers all over the world for mineral prospecting and also for engineers' test borings. The capacity of this device—namely, 50 to 200 feet in depth—with its portability and compactness, adapts it particularly to test work for sites of dams, bridges and drydocks, and for harbor work, as well as to locate bedrock for tunnels, aqueducts, etc. It may be operated by either hand, electric or gasoline power.

Clam Shell Buckets And Their Uses.

The G. H. Williams Company, manufacturers of clam shell buckets, Erie, Pa., have published an attractive and finely illustrated book of 32 large pages about their products. Pages 4 and 5 show the best type of bucket for any particular kind of work, viz., light or heavy excavating, dredging and all classes of material rehandling. The range of types, it is noted, is the most complete that the manufacturers have ever presented in one line, and the sizes run from 11 cubic yards' capacity (or even larger) down to a little two cubic foot bucket for manhole cleaning. One part of the book is devoted to special buckets for unusual work. A large number of facts related to buckets and their manufacture are also presented.

Pulverized Coal in a Power Plant.

A recent bulletin of the Combustion Engineering Corporation, 200 Madison avenue, New York city, contains a four-page reprint from "Power Plant Engineering," describing, with illustrations, the remodeling of the furnaces of the Firestone Tire and Rubber Company at Akron, Ohio, to burn pulverized coal prepared by the central system, this change being brought about by the increased steam demands of the plant. Pulverized coal, after preparation, is aerated and pumped to the boilers by screw pumps.

Great Advantages of Steel Roofs.

"Steel Roofing: Its Use and Application." Bearing the foregoing title the Sheet Steel Trade Extension Committee, Oliver Building, Pittsburgh, Pa., has published a pamphlet of 28 large pages, handsomely illustrated, for the purpose of "selling" the idea of sheet steel roofing throughout the country. Besides being fireproof sheet steel, it is shown, is not only in other ways a complete roofing material, but it is also a great protection against the effects of lightning. A steel roof properly grounded will, it is claimed, ward off lightning successfully and safely; lightning may strike a house so protected, but the bolt will be carried safely and harmlessly into the ground. The pictures show dwellings, barns, silos, etc., roofed with steel.

Steel and Its Many Uses.

The December issue of "Making Markets," which is published by the Sheet Steel Trade Extension Committee, 715 Oliver Building, Pittsburgh, Pa., contains one story in particular that should be of much more than passing interest. It is entitled "Whatever Flies, Roosts." It deals with possibilities for the use of sheet steel in supplying the growing housing needs of aviation work. But there are other contributions also of outstanding excellence, one of them being "More About Steel for Residences." Another is about the use of sheet steel for building dryers for seed corn. An installation of these is shown. They are heated by an oil-burning furnace. Steel barns are also being built and one of the articles tells about them. Steel is also used for tables and other furniture in an artistic manner.

Alabama Rock Asphalt for Roads.

"Better Roads and Pavements," a booklet issued by Alabama Rock Asphalt, Inc., Margerum, Ala., tells comprehensively about the advantages of Margerum limestone rock asphalt for constructing roads and streets. It is stated that pavements built of this material can be depended upon even in the hottest weather not to soften and form ruts that take all the joy out of motoring; neither do they shove into waves or other corrugations, yet they are sufficiently resilient not to chip or to crack. Besides, on rainy days they are not so slippery. There is an immense deposit of superior asphaltic limestone at Margerum, which is west of Muscle Shoals Dam, and much of it is now being used to build many of the finest roads in the South as well as elsewhere. Henry Lee Bowlby is president of the company.

Fast and Efficient Cleaning Machine.

"Hypressure Jenny" is the name of a new device manufactured by the Homestead Valve Manufacturing Company of Homestead, Pa. It was invented by F. W. Ofeldt. The company says that it furnishes a wet cleaning solution spray at any temperature or any pressure desired and that it will clean anything, whether it be an automobile or other piece of machinery or building, with great rapidity. Furthermore, sterilizing, thawing, paint-removing or vermin-exterminating solutions may be used by the machine as wished and forced through the coils of steel pipes, a pressure of 150 pounds being obtained within one minute. A folder gives full particulars and says that when used for paint removing the machine has stripped the paint off of trucks in one-third of the time usually required and at one-third of the cost. It will also cut grease or grime off of any machine and wash or sterilize any surface "from an office building to a milk can." A complete picture shows the device.

Three Foster-Wheeler Bulletins.

The first publications to be issued by the recently organized Foster-Wheeler Corporation, 165 Broadway, New York city, are three useful bulletins. Bulletin 102 describes the Foster Economizer, which is now widely used in power plants in this country and abroad, giving test data, illustrations and a steam table. Bulletin 119 deals with hot-water heating systems of the forced-circulation type, employing exhaust steam from a power plant as the source of heat. It is also illustrated. Bulletin 120 covers the new extraction type feed water heaters usually installed in turbo-electric power stations. The heat balance diagrams it contains will be appreciated by steam-plant engineers. It contains a large picture showing an installation of six vertical U-Tube Wheeler feed water heaters in the station of the Consolidated Gas Electric Light and Power Company at Westport (Baltimore), Md. There is also another illustration of high and intermediate stage heaters and a gland seal condenser in the Trinidad plant of the Texas Power and Light Company, besides many other pictures and diagrams of importance.

A Unique and Interesting Booklet.

A rather unusual booklet is that which the American Rolling Mill Company, Middletown, Ohio, has sent out telling about incidents in its life. In this publication the company, of which George M. Verity is president, emphasizes the importance of seemingly trivial things. The idea that little things have profound influence upon great deeds and big accomplishments is emphasized by its contents. The booklet is a reprint of a series of advertisements published by the company and it shows how incidents have pointed the way to success. Emphasis is laid upon the worth of "Armco" products.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers, whether they are advertisers, or subscribers, or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Important Industrial Merger.

The recent merger of the American Blower Company and the American Radiator Company brings together two of the oldest and best-equipped companies engaged in the manufacture of heating, ventilating, air conditioning and mechanical draft apparatus and allied lines. It is stated that each company will continue to operate much as it has in the past as to name, personnel, business methods and management, the merger making possible important economies. The executive offices of the American Blower Company are at Detroit, Mich., manufacturing operations being carried on there and also at Cincinnati, Ohio. The Canadian Sirocco Company, Ltd., of Windsor, Ontario, is an associate, manufacturing and selling throughout the Dominion. The general offices of the American Radiator Company are in New York city, general sales and manufacturing offices at Buffalo, N. Y., and Western executive office at Chicago. The main plant is located at Buffalo, branch plants at Tonawanda, N. Y.; Detroit, Mich.; Titusville, Pa.; Springfield, Ohio; Litchfield, Ill.; Bremen, Ind.; St. Paul, Minn.; Kansas City, Mo.; Bayonne, N. J.; Elyria, Ohio; Greensburg, Pa., and in several European countries. A subsidiary, the Dominion Radiator and Boiler Company, Ltd., Toronto and Brantford, Ontario, looks after business in Canada.

Zelnicker's Machinery Bulletin.

Zelnicker's Bulletin No. 352 is a four-page, pocket-size folder giving a list of machinery on hand, including motors, crushers, hoists, oil engines, air compressors, pumps, gasoline engines, steel piling, steam pile hammers, locomotive cranes, clamshell buckets, shovels, generators, cars, locomotives of various types, rails, crossties, switches, track bolts and other track material, etc. It is issued by the Walter A. Zelnicker Supply Company, St. Louis, Mo.

Industrial Electric Heating.

A fine article, headed "Industrial Electric Heating, Part 3," appears in the December issue of the General Electric Review. It is by N. R. Stansel of the industrial engineering department of the General Electric Company, Schenectady, N. Y., and deals with the subject "Melting Non-Ferrous Metals." The letter press is accompanied by tables, diagrams and illustrations, adding to the value and completeness of the contribution, which is comprehensive in its treatment of the subject.

Wood for Interior of Business Offices.

The Anderson Manufacturing Company, Inc., of Louisville, Ky., manufacturers of millwork, fine interior trim and high-grade cabinet work, have issued a large folder, with illustrations, of some of their work done in the new building of the First National Bank of that city, showing how the use of wood for paneling, partitions, counters, etc., lends an atmosphere of warmth to the interior of the edifice and creates a feeling of comfort and coziness that is desirable. Carl A. Ziegler of Philadelphia was the architect and L. Jacobson & Sons of Louisville was the general contractor. The Anderson organization is also represented in New York, Chicago, Detroit, Baltimore and Cincinnati.

Alabama Coal and Fuel Conservation.

"Some Facts Relating to Alabama Coal and to Fuel Conservation" is the title of an address given by Milton H. Fies, engineer of mines, Birmingham, Ala., and vice-president in charge of operations of the DeBardeleben Coal Corporation, before the joint fuel meeting of the Illinois Central Railroad, the Nashville, Chattanooga and St. Louis Railway and the St. Louis-San Francisco Railway at Memphis, Tenn., on November 18. It is now published in pamphlet form for handy reference. The information contained in the booklet is comprehensive and the tabulated data will be appreciated by everyone interested in the subject.

Harnischfeger's Cleveland Branch.

The Harnischfeger Corporation, whose factory and home office are at Milwaukee, Wis., has recently established a branch office at Cleveland, Ohio, the address being 340 Rockefeller Building; telephone, Superior 2584. J. T. Connors, district manager, is in charge there. He is widely known in the Cleveland business territory, and a complete line of the P. & H. gasoline-driven shovels, draglines, clamshell cranes and trenching machinery will be handled.

Will Sell Glasgow Iron Billets.

Joseph T. Ryerson & Son, Inc., of Chicago have sent out announcements that they have taken over the exclusive sales of the widely known Glasgow iron billets to the railroads of this country. It is also stated that Glasgow iron is a pure, hand-puddled, doubly-refined, rolled, wrought iron made by the Glasgow Iron Company of Pottstown, Pa., which was organized in 1876. The Ryerson organization will promote its sale along with the Lewis special staybolt and engine bolt iron, which is a product of the Penn Iron and Steel Company of Creighton, Pa. Glasgow billets, it is remarked, are made wholly from pure pig iron and slab piled. After being rolled they are cropped at the ends and inspected for blisters. They are used for forging draw bars, car parts, equalizers, etc. The billets are sized from 2½ to 8 inches thick and from 6 inches to 18 inches wide; also in 6-inch to 10-inch squares of usual lengths. It is also noted that they meet the Specification A84-24, Grade C, of the American Society for Testing Materials.

Graham Machine Company.

The Graham Machine Company, Inc., 171 Broadway, New York city, has been formed as a selling organization for reliable products from up-to-date factories, also for the liquidation or scrapping of industrial and other plants of real value. C. A. Graham is interested. He was formerly with the Plimpton Lift Truck Company.

Acetate Rayon in the United States.

The Du Pont Rayon Company, Inc., Buffalo, N. Y., have, it is announced, acquired the manufacturing and sales rights for the United States for acetate rayon from the Rhodiaseta Company of France. This product is known in France and elsewhere in Europe as Rhodiaseta and it will be sold in this country by the Du Pont Rayon Company until a manufacturing plant is built here. Frank R. Scull, present district sales manager of the Du Pont Rayon Company, will be the sales manager in charge of the sale of this acetate rayon, known for the present as Rhodiaseta.

Shepard Elevator Co. Buys Foundry.

The Shepard Elevator Company of Cincinnati, Ohio, has bought the plant and the good will of the John J. Bruce Foundry Company whose property adjoins the Shepard factory in that city, and this now gives the Shepard Elevator Company a frontage of 240 feet, with a depth of 440 feet, on Colerain avenue. The purchasing company is a large user of castings and it will accordingly continue to operate the Bruce foundry under its former management. A number of improvements will be made. This is the fourth time since it began business six years ago that the Shepard Elevator Company has had to increase its capacity and its facilities on account of rapidly growing business. Many of the elevators built are in use throughout the country in prominent buildings and the freight elevators are also widely used. They have ball bearings.

Research for Better Business.

"Better Business Through Research in New England Industry" is the title of a report completed for the research committee of the New England Council by the Policyholders' Service Bureau of the Metropolitan Life Insurance Company of New York city, Haley Fiske, president. Detailed reports of the findings of this survey will be published soon in three sections under the respective titles, "Applying Research to Sales," "Production Research and Employment" and "Stabilization Through Research." James L. Madden, third vice-president of the company, says that more than 300 New England companies have furnished material for these reports; also that the facts are sufficiently concrete and practical to be of value to all alert business men.

Contract for Power Station.

Stevens & Wood, Inc., engineers and constructors, 120 Broadway, New York, have signed a contract covering the design and construction of a new power station, to be known as the "Deep Water Station." It will be jointly owned by the American Gas and Electric Company and by the American Electric Power Corporation and will be located on the New Jersey side of the Delaware River at Deep Water Point, opposite Wilmington, Del. It will be projected for an ultimate capacity of about 400,000 K.W., it being probable that the initial installation will consist of two units, each approximately 50,000 K.W.

How Mississippi Is Advancing Its Cheese and Dairy Interests.

In a letter to the MANUFACTURERS RECORD telling of recent progress in Mississippi in the development of the dairying and cheese industries of that State and the increased interest in pure-bred stock, L. J. Folse, general manager of the Mississippi State Board of Development, writes as follows:

"The Borden Milk Company's condensery at Starkville, Miss., paid out \$150,000 recently to the farmers in that territory. The interesting fact about the rapid development of that valuable plant is that approximately 40 per cent of the milk is being furnished by negro farmers, tenants and owners. Every month is Christmas for the farmers within a radius of 24 miles of Starkville.

"In the territory around Tupelo, where the Carnation Milk Company is operating a large condensery, you will find the same story. After operating for only four months, the Carnation people have decided to practically double the capacity of this condensery.

"We count the Kraft Cheese Company as one of our most valuable acquisitions. They have under construction cheese plants which will cost nearly \$100,000 when completed at the following points in Mississippi: Durant, Wesson, Louisville, Houston and Water Valley; they will soon erect a cheese plant at New Albany, also one of our thriving dairy communities. In addition, A. H. Barber of Chicago is putting in a cheese plant at Columbus, Miss., and is investigating other localities in that territory. X. A. Kramer of McComb will build five cheese plants adjacent to McComb, one being practically ready for operation.

"We have several ideal locations for dairying industries in North Mississippi and the only apprehension we have is that our people will try to grow too fast. We are cautioning them and it would be interesting to you to see the methodical and businesslike way everybody is co-operating in surveying their respective counties and districts to find out exactly the supply of milk and the deficiency in dairy cattle and pure-bred bulls.

"As an illustration of what business men can do, the Exchange Club of this city, through one of its members, T.

Mitchell Robinson, surveyed Hinds County, of which Jackson is the county seat. They visited every farm and tabulated the number of cattle on hand and estimated the number of cows each farm would take care of. As a result of this survey they will distribute throughout Hinds County twenty pure-bred registered bulls from high producing stock. The significant thing about this is that a druggist contributed one bull, a hotel proprietor another, an insurance agent one and, in fact, Mr. Robinson reports that without a planned program to raise the money he called on 20 people and got 20 bulls.

"The Exchange Club plans now to distribute 60 pure-bred heifers among the club boys of Hinds County each year. We are fortunate in having wonderful co-operation from our clubs.

"The Illinois Central Railroad and the Gulf, Mobile and Northern Railroad, especially, are stressing dairying development. As you know the Illinois Central for several years past has distributed pure-bred bulls throughout Mississippi, and the other railroads are now taking up the work.

"Wherever business men demonstrate an interest in rural problems in their respective territories we find a prosperous rural community. Where a rural community is backward and the farmers are making but little progress, we find an absolute lack of interest in the business men of such communities.

"The example of the Exchange Club of Jackson is being followed and there is an active campaign on in every county to supplement the scrub bull with a pure-bred bull.

"Frank W. Foote, a director of this board, and president of the First National Bank of Hattiesburg, is running a series of ads in all the daily papers of South Mississippi headed, 'A Factory on Every Farm,' calling the attention of the farmers in that territory to the tremendous progress made by the farmers in North Mississippi, and urging them to co-operate in the adoption of the Stock law and the eradication of the cattle tick. We have only 23 counties left which are tick infested, and now that the bankers and business men appreciate that eradication is fundamental we believe it is safe to say that by November, 1929, all of Mississippi will be tick free and completely under stock law, and with the program inaugurated in the north half of the State for pure-bred bulls and in some of the southern counties, I am confident that by 1932 a scrub bull will be hard to find in Mississippi.

"Mississippi is awake and moving forward and the future looks bright."

Machine Progress in Southern Agriculture.

By LYNWOOD W. GRAY, Fort Valley, Ga.

In the process of development in Southern agriculture during the past few years, machinery has played an important role. The tendency has been toward a greater volume or output of work with less man-power, and the training of the ordinary labor usually found on Southern farms to a higher order of performance. Efficiency in farm management, machine operation and field crop practice have in many instances advanced as rapidly as in other industries. There is, however,



TRACTOR-DRAWN TWO-ROW CORN PLANTER.

Used by the Hale-Gordon Orchard Co. This machine requires 35 man-labor hours to plant 100 acres of corn. The same work done by mules calls for six mules and four drivers, or the expenditure of 150 man-labor hours.

some difference in the economic status of American industry and agriculture, so that it is hardly probable that the present farm problems will ever be worked out on a basis of efficiency alone.

Increased production at lower unit cost is the one fundamental and basic principle that may be applied to successful agriculture. The application of engineering principles and machine operation have contributed more in the past 10 years toward agricultural development in the South than any other source. Machine farming is proving thoroughly practicable and profitable, and as a time element it ranks well along with industrial efficiency. The ideas of the agricultural engineer are far reaching and what may have seemed visionary several years ago is actually being put into operation today.

The evolution of the combine from the hand sickle has no parallel. Its use in the harvest of the 1927 Western grain crop means the elimination of some 75,000 laborers and the reduction of from 4 hours to 20 minutes in the production of a bushel of wheat. What the engineer has done for the West with the combine, the engineer will do for the South with the cotton picker, which is destined to revolutionize the cotton industry, as the picking and ginning expense constitute 25 to 30 per cent of the growing cost, and often 25 per cent of the selling price. Rapid harvesting of cotton by means of the sledding process is in use in Texas. While this method is subject to considerable refinement both in the field and in the cleaning equipment at the gin, it has in a great measure met the problem of labor shortage during the picking season.

The rapid development of farm machinery in recent years has been marvelous. Its effect upon agriculture in general has been very stimulating and it promises still greater reduction in the production cost. It not only offered a brighter prospectus for the farmer, but also opened an avenue to the distressed farm machinery and implement manufacturer, just following the deflation period. The power-drawn implements, with their fast forward movement; the two and four row

planters and cultivators, the large seeding machines, gang plows and double action disc harrows and the general purpose threshing machines all speak for what the engineer is doing to relieve the burden of both man and beast.

The idea in the old South of a negro, a mule and 40 acres of land as a unit is becoming obsolete. One hundred acres, and even more, per man in the South with its cultivated crops are not uncommon and the work is being done much cheaper and better than had heretofore been possible.

The cotton and corn club boys, with their five-acre patches, have reduced the cost of growing cotton to 5 cents per pound and corn to 25 cents per bushel. Their results are practicable, and large commercial plantings are approaching these costs. Indeed, 3000 bales of cotton on 2900 acres, and 100 bushels of corn, are reported as grown on the old lands of the South. Scientific methods and machinery are changing the production limits on large areas. These may represent extremes, but they serve to show what the farmers of tomorrow will do.

Engineers are at work on every phase of agriculture and are constantly bringing out new machinery designed to increase the general farm efficiency, as well as the comfort and convenience of the farmer himself. Modern homes are available for every successful farm, fully equipped with electric lights, running water, modern plumbing and electrical refrigeration, at a cost that is well within range of most everyone. The electric power companies are threading the country with power transmission lines, making hydro-electric service available for use on the farm. Educational and experimental work in rural electrification is in progress and the farmers are beginning to appreciate just what electric service means to them. The automobile as a fast means of transportation prevents isolation and eliminates distance. The radio has put the farmer in close touch with the world.

Proper drainage and terracing as a means for the prevention of soil erosion, the elimination of waste and the intelligent application of new machine design are creating an efficiency in agriculture closely approximating that of other branches of industry.

Cheaper Method for Production of Fertilizer— Company to Build Experimental Plant.

University, Ala.—Laboratory experiments at the University of Alabama, which have been conducted for the past 18 months by Dr. Stewart J. Lloyd, dean of the department of chemistry, and A. M. Kennedy, research engineer of the Alabama Power Company, Birmingham, indicate a cheaper method of producing fertilizer than methods commonly used. The only expensive ingredients used in the new method, it is said, are phosphate rock, ammonia and carbon-dioxide gas, while in the old method a large amount of sulphuric acid is used, which greatly increases the cost of production.

It is stated that patents on the new method have been applied for and that the Chemical Products Company of Birmingham, in co-operation with the Sloss-Sheffield Steel and Iron Company and the Alabama By-Products Corporation, also of Birmingham, will build an experimental plant in Birmingham, to carry on experiments along a new line on a semi-commercial scale.

Chattanooga Bank to Erect New Building.

The American Trust and Banking Company of Chattanooga, Tenn., advises that it is about to begin the erection of a building fronting 60 feet on one street and 153 feet on another, with a height of approximately 55 feet. K. M. Vitzthum & Co. of Chicago and Bearden & Crutchfield of Chattanooga are the architects. Construction bids will be opened December 19. The structure will be used exclusively as a bank.

Those Old TITANS

Who Wanted Facts

Every now and then, the picture of some industrial giant or financial genius of twenty-five or thirty years ago, appears in a current magazine.

No matter who the old gentleman may be, he is apt to be credited with having said, "I want the *facts*." And to any one familiar with the biographies of some of these grand old men, it is hardly questionable that they *did* want the facts and said so.

They hungered for facts, these old Titans—facts on trade conditions, on markets, materials, processes, inventories, costs, organization, sales—facts on the wastes in their business, leaks and mistakes. That facts were obscure and hard to get in their day only stimulated their desire for exact knowledge. They searched and *dug* for facts, and on them visioned the future and laid the plans for their great achievements.

All progressive business, striving to attain larger reward and new heights in human service, has for its slogan, *Facts*. And Modern Accountancy stresses the *necessity* for facts, timely, dependable, properly interpreted—and has made them, to a large extent, readily available.

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SAN FRANCISCO
LOS ANGELES

FINANCIAL NEWS

Bond Issues Proposed

- Ark., Bentonville—School—Bentonville School Board, W. T. Dudley, Pres., receives bids Jan. 5 for \$110,000 5½% Dist. bonds.
- Ark., Stamps—Paving—City votes soon on bonds. Address City Clk.
- Ark., Texarkana—Airport—City considering \$50,000 bond election. Address City Clk.
- Fla., Jacksonville—Street—City, M. W. Bishop, Sec., considering selling \$25,000 bonds.
- Fla., New Port Richey—Library—City plans voting on \$15,000 bonds. Address City Clk.
- Fla., Ocala—Marion County Commrs., T. D. Lancaster, Jr., Clk., receive bids Jan. 4 for \$500,000 6% \$1000 denom. bonds.
- Fla., Pensacola—Improvement—City, J. E. Frenkel, Clk.-Treas., voted \$225,000 bonds; \$100,000, paving; \$100,000, sewers; \$25,000, improve Legion Field municipal stadium; defeated \$50,000, for public library. 11-17
- Fla., Tampa—Road, Bridge—Hillsborough County Commrs., W. A. Dickenson, Clk., rejected bids for \$80,000, 6%, \$1,000 denom. Palm River Special Road and Bridge Dist. bonds. 11-17
- Ga., Fort Valley—Street—City plans bond issue. Address City Clk.
- Ky., Hazard—Road—Perry County Fiscal Court, K. N. Salyer, County Judge, receives bids Jan. 9 for \$50,000 bonds. 11-17
- Ky., Louisville—Grade Crossing—Board of Public Works will sell \$500,000 bonds.
- Ky., Louisville—Parks, etc.—City, Board of Park Commrs. plan selling \$1,500,000 bonds; Joseph T. O'Neal, Mayor. 12-1
- Ky., Louisville—Sewer—Commrs. of Sewerage authorized sale of \$1,000,000 bonds.
- La., Abbeville—Road—Vermilion Parish Police Jury, R. J. Montague, Pres., receives bids Jan. 4 for \$73,000 6% Road Dist. No. 4 bonds.
- La., Abita Springs—Paving—Town, Mayor and Board of Aldermen, receive bids Jan. 3 for \$15,000 6% bonds.
- La., Bastrop—Sewer—City plans calling election soon on \$400,000 bonds. Address City Clk.
- La., New Roads—Road—Pointe Coupee Parish Police Jury receives bids Jan. 5 for \$40,000 6% Road Dist. No. 3 bonds.
- La., Pineville—Improvement—Town, C. G. David, Clk., reported, voted \$137,000 bonds; receives bids Jan. 16 for \$137,000 bonds; \$100,000, sewer; \$37,000, water works.
- Miss., Biloxi—Bridge—Harrison County Board of Supvrs., Gulfport, plans selling \$325,000 bonds.
- Miss., Fayette—Road, Bridge—Jefferson County Board of Supvrs., O. S. Gillis, Clk., receives bids Jan. 3 for \$100,000, not to exceed 5% bonds. 11-24
- Miss., Greenwood—Drainage—Carroll County Board of Supvrs., J. T. Allen, Clk., receives bids Jan. 2 for \$7,000 Pelucia Swamp Land Dist. bonds.
- Miss., Senatobia—School—Board of Trustees considering \$35,000 bond issue.
- Miss., Waynesboro—Road—Waynesboro-Frost Bridge Separate Road Dist., Wayne County, defeated \$75,000 bond issue. 12-1
- Missouri—State Highway Comn., Jefferson City, recommends \$60,000,000 bond issue to complete highway system, build feeder roads in various counties and relieve congested areas near St. Louis and Kansas City; T. H. Cutler, State Highway Engr.
- Mo., Bollivar—Water Works—City votes Jan. 10 on \$40,000 bonds. Address City Clk. 12-1
- N. C., Lexington—City, R. P. Earnhart, Clk., receives bids Jan. 3 for \$335,000, 4¾%, \$1,000 denom. bonds; \$225,000, water works and light; \$110,000, school.
- Okla., Fort Cobb—City votes soon on \$55,000 bonds for water works and sewer; C. A. Wood, Const. Engr., Oklahoma City, and Stillwater.
- Okla., Mooreland—Water Works—City voted \$65,000 bonds. Address City Clk.
- Okla., Oklahoma City—Improvement—City, E. M. Fry, Mgr., receives bids Jan. 5 for \$10,329,000 bonds; B. M. Hart, Engr. 12-8
- Tenn., Greenville—Water Supply—City votes before Jan. 1 on bonds. Address City Clk.
- Tenn., Jamestown—Road—Fentress County, H. N. Wright, Judge, receives bids Dec. 23 for \$100,000 5% \$1000 denom. bonds.
- Tenn., Lewisburg—Bridge—Marshall County voted \$30,000 bonds. Address County Commrs.
- Tenn., Paris—Road—Henry County, J. J. Thompson, Judge, plans \$750,000 bond issue.
- Tenn., Union City—Road—Obion County, Henry O. Stanfield, Judge, receives bids Dec. 26 for \$645,000 5% bonds. 11-17
- Tex., Alvin—City votes Jan. 3 on \$110,000 bonds; \$60,000, snow removal; \$30,000, paving; \$20,000, city hall. Address City Clk.
- Tex., Beaumont—Road, Bridge—Jefferson County, B. B. Johnson, County Judge, reported, defeated \$4,000,000 bond issue. 11-24
- Tex., Brownwood—Refund—City plans voting on \$129,000 5% bonds. Address City Clk.
- Tex., Dallas—City voted \$23,900,000 bonds: \$1,900,000, public schools, etc.; \$5,500,000, street openings and widenings, building lines and underpasses; \$1,500,000, parks and connecting boulevards; \$1,000,000, extend and improve sanitary sewers; \$3,500,000, city's share for storm water drainage; \$3,000,000, city's share for street paving; \$350,000, fire department, central station and other improvements; \$150,000, incinerators; \$500,000, libraries, additions and equipment; \$500,000, Institute of Fine Arts Bldg. and equipment; \$1,000,000, municipal auditorium, downtown building; \$400,000, municipal airport; \$400,000, hospitals; \$4,000,000, water works improvement; \$200,000, working staff; E. A. Wood, City Engr.
- Tex., Florence—Water Works—City votes Dec. 29 on \$30,000 5½% bonds. Address City Clk.
- Tex., Galveston—Fire Boat—City voted \$200,000 bonds; J. E. Pearce, Mayor. 11-17
- Tex., Galveston—Intracoastal Canal—City, Jael E. Pearce, Mayor, plans selling \$75,000 bonds. 9-22
- Tex., Galveston—School—Galveston County Board of Education plans bond issue.
- Tex., Gonzales—Improvement—City plans \$120,000 bond issue. Address City Clk.
- Tex., Lampasas—City voted \$80,000 bonds: \$72,000, sewer; \$8,000, water works. Address City Clk. 11-17
- Tex., Mercedes—School—School Board may call election on \$38,000 bonds.
- Tex., New Boston—Water Works—City plans selling \$55,000 bonds. Address City Clk.
- Tex., Raymondville—Road—Willacy County, Lyford Road Dist. plans voting soon on bonds. Address County Commrs.
- Tex., San Diego—Duval County plans receiving bids in near future for \$575,000 bonds. Address County Commrs.
- Tex., Troup—School—Troup Independent School Dist., A. B. Tarbutton, Pres., plans selling \$12,000 bonds. 12-15
- Tex., Woodville—Road—Tyler County voted \$133,000 bonds. Address County Commrs.
- Va., Newport News—School—City Council considering \$150,000 bond issue for high school and administration building. Address City Clk.
- W. Va., Point Pleasant—Mason County, Cologne Dist., voted \$35,000 bonds. Address County Commrs.

Bond Issues Sold

- Ala., Mobile—Harbor—State Docks Comn., Gen. William L. S. Ibert, Chmn., Birmingham, sold \$2,000,000, 4¾% bonds to syndicate composed of First National Bank, Chase Securities Corp., Kountze Brothers, Eldredge & Co., Barr Brothers & Co., Inc., Redmond & Co., Phelps, Fenn & Co., Brandon & Waddell, all New York; Caldwell & Co., Nashville, Tenn.; Marx & Co., and Ward, Sterne & Co., both Birmingham, at 103.2025. 12-1
- Fla., Bradenton—Road, Bridge—Manatee County Commrs., Robert H. Roesch, Clk., sold \$400,000, 5½%, \$1,000 denom. bonds to Morris Mather Co., New York, at premium of \$12,057.
- Fla., Fort Myers—Refunding—City, reported, sold \$236,000 5.5% bonds to Florida Municipal, Inc., Jacksonville, at 102.1.
- Fla., Frostproof—Funding—Town, P. J. Langford, Mayor, sold \$30,000 bonds to Citizens Bank at \$27,300 and accrued interest.
- Fla., Orlando—Road—Orange County Commrs., B. M. Robinson, Clk., sold \$1,305,000, 5%, \$1,000 denom. bonds to Eldredge &

Co., New York, and Wright, Warlow Co., Orlando, at \$1,321,500. 11-24

Fla., Pensacola—Road—Escambia County Commrs., Langley Bell, Clk., sold \$40,000, 6% warrants to Citizens and Peoples Bank, at about 98.5.

Fla., Sebring—City, reported, sold \$250,000 6% bonds to G. B. Sawyer & Co., Jacksonville. 11-24

Ga., Bainbridge—Paving—Decatur County sold \$30,000, 5% coupon bonds to Bell, Spears & Co., Atlanta, at 101.85.

Ga., Commerce—Street—City, N. B. Lord, Clk.-Treas., sold \$31,000 5% bonds to Northeastern Banking Co. at \$34,240. 12-1

Md., Federalburg—Water Works—City Commrs., Thomas Chambers, Pres., sold \$30,000, 4¾% coupon bonds to Mackubin, Goodrich & Co., Continental Co., and Strother, Brogden & Co., all Baltimore, Md., at 100.53. 11-24

Miss., Canton—Road—Madison County Board of Supvrs. sold \$300,000, 4½% bonds to Caldwell & Co., Nashville, Tenn., and Canton Exchange Bank, Canton. 11-10

Miss., McComb—Improvement—City, Board of Mayor and Selectmen, sold \$50,000 4¾% bonds to Sutherland, Barry & Cleaver, Inc., New Orleans, La., at premium of \$475; \$30,000, water and sewer mains extension; \$20,000, fire station and dormitory. 11-17

Miss., Water Valley—Road—Yalobusha County Board of Supvrs. sold \$122,500, 5½%, \$500 denom. bonds to First National Bank of Memphis, Tenn., at premium of \$7,225. 11-24

N. C., Carrboro—Street—Town, H. E. Williams, Clk., sold \$25,000, 5¼%, \$1,000 denom. bonds to Hanchett Bond Co., Chicago, Ill., at 101.08. 11-24

N. C., Greenville—School—Greenville Graded School Dist., J. H. Rose, Sec., sold \$100,000, 4¾% bonds to Wells, Dickey Co., Minneapolis, at premium of \$3,309. 11-10

N. C., Greensboro—School—Board of Education, T. A. Glascock, Sec., reported, sold \$1,000,000, 4½% bonds to group comprising Guardian-Detroit Co., Inc., Remick, Hodges & Co., both New York; Dewey, Bacon & Co., and C. W. McNear & Co., Chicago, at 102.619. 12-1

N. C., Greensboro—Improvement—Guilford County Commrs., reported, sold \$1,565,000, bonds to Harris, Forbes & Co., New York, at 100.21.

N. C., Liberty—Street—Town, R. E. Wilkins, Clk., sold \$47,000, \$1,000 denom. bonds to Hanchett Bond Co., Chicago, Ill. 11-24

S. C., Anderson—Road—A. M. Law & Co., Spartanburg, reported, purchased \$370,000 bonds for 31 mi. road, Anderson County.

S. C., Orangeburg—Highway—Orangeburg County Commrs., H. E. Moore, Clk., sold \$282,000, 4¾%, \$1,000 denom. bonds to Peoples Securities Co., Charleston, at premium of \$5,225. 12-1

Tex., Anahuac—Road—Chambers County, L. R. Miller, Judge, sold \$100,000 5% \$1000 denom. Road Dist. No. 2 bonds to C. W. Arlitt, Austin. 12-8

Tex., Brownsville—Navigation—Cameron County, Oscar C. Dancy, Judge, sold \$500,000 Arroyo Colorado Navigation Dist. bonds to Walter, Woody & Heimerdinger, Cincinnati, Ohio, at par and accrued interest; Ben Chambers, Chmn. of Board of Dist. 8-11

Tex., Brownwood—Brown-Crummer Co., Wichita, Kansas, purchased \$129,000, 5% refunding bonds, prior to election; also purchased \$15,000 issue of warrants.

Tex., Houston—Improvement—City, J. C. McVea, City Engr., reported, sold \$2,625,000 bonds to syndicate composed of Guaranty Co. Eldredge & Co., Ames, Emerich & Co., Detroit Co., Inc., Kean, Taylor & Co., all New York; Mercantile Trust Co., First National Co., and G. H. Walker & Co., all St. Louis; George L. Simpson & Co., Dallas, Tex.; \$2,375,000, 4¾%, at 100.832; \$250,000, 4½%, at 101.342. 10-30

New Financial Corporations

Ala., Cottonwood—Bank of Cottonwood, capital \$25,000, organized; E. J. Jones, J. N. Stewart, A. A. Kingrev

La., New Orleans—Woolfolk, Waters & Co., Hibernia Bank Bldg., organized; Robert M. Woolfolk, 4100 Fontainebleau Dr., Arthur C. Waters, 2327 Chestnut St., Allen C. Hug-gins.

Mo., Gallatin—Bank of Gallatin, capital

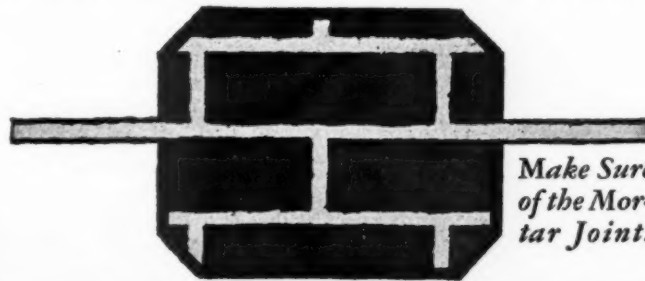
(Continued on page 102)



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FINANCIAL NEWS

(Continued from page 100)

\$25,000, chartered; R. M. Cook, Kansas City; W. G. Smith, T. M. Harrison, both Gallatin. N. C., Raleigh—Merrimont Investment Co., capital \$100,000, incorporated; A. G. Oliver.

Citizens Bank, J. L. Hocker, Pres.; A. Thompson, Cashier, Greenville, Mo., absorbed State Bank of Patterson, A. N. Costner, Pres.; H. F. Maddox, Cashier, Patterson, Mo. Republic National Bank, W. O. Connor, Pres.; Rupert Eldridge, Cashier, Dallas, Tex.,

plans increasing capital, \$2,500,000 to \$3,000,000.

Portland Building & Loan Assn., Albert Struby, Pres., W. B. Furgerson, Sec., Sixth and Jefferson Sts., Louisville, Ky., plans increasing capital to \$15,000,000.

Hood System Industrial Bank, Winston-Salem, N. C., plans increasing capital \$200,000 to \$500,000.

Overlea Bank, Belair road, and West Baltimore Bank, J. G. Dabrasky, Cashier, Pratt and Payson Sts., will merge with Union Trust Co. of Maryland, John M. Dennis, Pres., Thos. C. Thatcher, Sec., Charles and Fayette Sts., all Baltimore, Md.; increasing

Union Trust total assets to about \$37,500,000; boards of directors of both banks will be organized into advisory boards of respective institutions; banks to be operated as branches of Union Trust Company, which contemplates increasing capital stock.

The Maryland Bankers' Association has selected Old Point Comfort, Va., for holding the sessions of its annual convention next year. Arrangements have been made to meet at the Vanderbilt-Chamberlin Hotel there on May 16 and 17.

Portland Building & Loan Assn., 6th and Jefferson Sts., Louisville, Ky., plans increasing capital \$14,000,000 to \$15,000,000.

Architects for \$1,700,000 School Program in Oklahoma City—Date of Bond Sale Set.

Oklahoma City, Okla.—Local architects have been selected by the Board of Education for the proposed school construction to be carried out under a program which will involve the expenditure of \$1,700,000. Plans and specifications for additions to the Roosevelt, Webster and Classen high schools and new buildings southeast of Lee school, northeast of Linwood, southeast of Longfellow and the new Herronville school will be prepared by Layton, Hicks & Forsyth, while plans for additions to the Hawthorne and Dew Spivey schools will be prepared by Leonard Bailey. Valberg, Sorey & Layton will prepare plans for an addition to the Central high school; Harry Reynolds for additions to the Horace Mann and Edgemere schools; Joe I. Davis for additions to the Linwood and Wilson schools, and Guy C. Reed for work on the Westwood school and the Board of Education's administration building.

Bids for a bond issue of \$1,700,000 to be used for the improvements will be opened on January 3.

Guilford County and Greensboro Sell \$2,565,000 Road and School Bonds.

Greensboro, N. C.—Guilford county bonds in the amount of \$1,565,000 as 4½s, for the construction of roads and bridges have been sold by the county commissioners to Harris, Forbes & Co. of New York at a price of 100.21, while the city of Greensboro has sold an issue of \$1,000,000 school bonds to a syndicate comprising the Guardian-Detroit Company, Inc., New York; Remick, Hodges & Co., Dewey, Bacon & Co. and C. W. McNear & Co. at 102.619, also to bear interest at 4½ per cent.

\$2,625,000 Bonds Sold by City of Houston.

Houston, Texas.—Bonds in the amount of \$2,625,000 have been sold by the city of Houston at a higher price than any obtained before. An issue of \$2,375,000 as 4½s were sold at 100.832 and an issue of \$250,000 4½s at 101.342, the bonds being purchased by a syndicate composed of the Guaranty Company of New York, Eldredge & Co., Ames, Emerich & Co., the Detroit Company, Inc., Kean, Taylor & Co., the Mercantile Trust Company of St. Louis, First National Company of St. Louis, G. H. Walker & Co., St. Louis, and the J. E. Jarratt Company of San Antonio, Texas.

Louisiana Town Asks Bids on Sewerage System.

De Quincy, La.—Sealed proposals will be received until January 5 by the Board of Sewerage Commissioners of Sewerage District No. 1, De Quincy, for furnishing labor, materials and equipment and for constructing a sanitary sewerage system. Plans may be seen at or obtained from the office of M. M. Smith, secretary of the Board of Commissioners. Engineering details are being handled by the J. B. McCrary Engineering Corporation of Atlanta, Ga.

Florida County to Vote on \$1,757,000 Bonds.

Stuart, Fla.—An election has been called for December 31 by the Board of Commissioners of Martin County on bonds in the amount of \$1,757,000 for road and bridge construction covered by 23 projects. The bonds will be dated January 1, 1928, and will bear an interest rate of 6 per cent.

Kentucky County to Sell Funding Bonds.

Shelbyville, Ky.—At a special meeting of the Shelby County Fiscal Court a bond issue of sufficient amount to pay the county's floating indebtedness was authorized. It is not definitely known what this amount will be, but it is understood that the issue will be between \$200,000 and \$230,000, to bear an interest rate of 4½ per cent. They have been sold to J. J. B. Hilliard & Son of Louisville, at 102.

New Cutting Method Introduced in Slate Quarrying.

The method of using a long slender strand of steel, called a wire saw, for cutting out masses of slate, introduced into this country by the United States Bureau of Mines, it is said, promises to result in the partial elimination of great waste in the slate quarrying industry.

Essentially the wire saw is a three-strand wire cable running as an endless belt. This cable takes the place of the saw blade and the teeth of the saw consist of sand grains carried in the spiral grooves formed by the winding of the wire strands. The saw cable is carried and guided by means of orienting pulleys from the driving unit to the particular place in the quarry where a cut is desired. Here the wire is brought in contact with the slate, and is drawn across it while held forcibly against it. Sand is automatically fed to the saw by means of trough-shaped boxes using a small stream of water as a conveyor. As the sand is carried against the moving cable it is caught in the grooves and carried along. The sand is thus forced against the rock and dragged along with the cable, wearing away the rock particles where pressure of the wire is exerted. This results in rapid abrasion, forming a cut about one-fourth inch in width, which is a little wider than the diameter of the cable.

The possibility of the successful application of the wire saw in other quarrying and mining industries is suggested by the Bureau of Mines. Inquiries have already come from marble quarrymen, limestone producers and coal miners. Engineers of the bureau's nonmetallic minerals experiment station, New Brunswick, N. J., will conduct further tests in the endeavor to give all mining and quarrying industries the full benefit of this new type of equipment.

Contract is expected to be awarded this month by the Department of Highways and Public Works, Nashville, Tenn., for the construction of a concrete and steel bridge over the Tennessee River, near Perryville. The Department is also having a survey made for repairing a road between Fayetteville and the Alabama State line.

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St. Augustine's \$450,000 Bank Building.

A new building was completed a few months ago in St. Augustine, Fla., for the First National Bank at a cost of approximately \$450,000. The structure is eight stories, of steel and brick with white stucco finish. It has a banking room of classic design, carrying out details of the Corinthian order. Woodwork throughout is of birch with mahogany



FIRST NATIONAL BANK BUILDING, ST. AUGUSTINE.

finish and there is an indirect lighting system, with direct lights for the cages and work space. A Diebold safe and vault weighing more than 20 tons with equipment has been installed by the Franz Safe and Lock Company of Jacksonville, Fla. Francis A. Hollingsworth is the architect and the W. P. Thurston Company, Inc., general contractor, both of St. Augustine.

Insull Interests Purchase Eastern Utilities Company—Properties to Be Operated by National Electric Power Company.

New York, N. Y.—According to an announcement by E. H. Rollins & Sons and Howe, Snow & Co., bankers, of this city, negotiations have been completed by interests of Samuel Insull, Chicago, for the purchase of stock of the National Public Service Corporation of New York, held by the United Gas Improvement Company and Day & Zimmerman, Inc., both of Philadelphia. The United Gas Improvement Company owned 50,000 shares directly of class B stock in the

National Public Service Corporation, and additional holdings of nearly 49,000 shares of similar stock through its acquisition last spring of Day & Zimmerman, Inc. There are 430,000 shares of class B stock outstanding.

Important properties of the National Public Service Corporation are located in New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, Georgia, Florida and West Virginia. These will be operated by the National Electric Power Company, New York, which was acquired by the Insull interests about a year ago.

Houston Asks Bids on Channel Work and Market.

Houston, Tex.—Sealed proposals will be received until December 28 by the city of Houston, O. F. Holcombe, mayor, for changing the channel in the Buffalo River and for the substructure for a farmers' market. The proposed work will involve 80,000 cubic yards of excavation, driving 150 tons of sheet piling, furnishing and driving 12,000 lineal feet of untreated timber piling, 50,000 lineal feet of treated timber piling, furnishing and placing concrete and 75 tons of reinforcing steel. The new channel will be walled with concrete and pilings sunk to provide a solid foundation. A bond issue of \$400,000 is available for the proposed market, of which approximately \$200,000 will be expended for the substructure. Plans for the superstructure are expected to be complete by January 1 and the erection of sheds and stalls begun by March 1.

Takes Over Gas Franchise at Laurel, Miss.

Frederick S. Mordaunt of New Orleans, La., advises that the gas franchise of Laurel, Miss., has been taken over by Francis R. Weller of Washington, D. C., president and chief engineer of the Allied Utilities Corporation of that city, in conjunction with Philadelphia bankers. Contract for building a gas plant has been awarded to the Parker Russell Mining and Manufacturing Company of St. Louis, which has sublet a considerable part of the equipment to the Western Gas Construction Company of Fort Wayne, Ind. The Mississippi Gas and Coke Company has been incorporated with a nominal capital to own and operate the enterprise, Mr. Weller to be president and Mr. Mordaunt vice-president.

Contract for \$250,000 Government Building at Williamson.

Williamson, W. Va.—General contract has been awarded by the Treasury Department, Washington, D. C., to the Virginia Engineering Company of Newport News, Va., for the erection of a \$250,000 postoffice and courthouse here. According to the terms of the contract, work will begin April 1 with a view to completing the building within six months.

Bids Invited on Radford High School.

Radford, Va.—Bids will be received until December 29 by the Radford City School Board for the erection of a high school building, for which plans and specifications may be obtained from D. R. Beeson, architect, of Johnson City, Tenn. Information regarding the building may also be obtained from Mr. Beeson or from W. K. Barnett, superintendent of schools, East Radford.

Officers of Fertilizer Association.

Salisbury, Md.—At a meeting here of the Delmarva Peninsula Fertilizer Dealers' Association the following officers were elected: William P. Ward, Salisbury, president; I. W. Culver, Seaford, Del., vice-president; D. B. Ford, Chestertown, Md., secretary, and W. H. Price Smyrna, Del., treasurer.

A New Method for Canning Citrus Fruit Juice Which Chemists Failed to Discover.

W. J. Howey of Howey, Fla., whose letter in regard to canning grapefruit and orange juice was published in a recent issue of the MANUFACTURERS RECORD, in giving some additional facts at our request, writes as follows:

"Some eighteen years ago, the writer was interested in the canning of grapefruit juice, or rather in putting it up in bottles. Mr. Street was the first one to my knowledge who attempted this in the State of Florida. Everything went along fine until the stuff turned acid, as we called it in those days. It was so bitter we could hardly use it. There have been divers and numerous methods employed in the hope of finding a method of processing this juice to keep it fresh in the can as it is in the skin. Many of these methods have come very near to it, some closer than others. Many efforts were made by chemists of considerable experience who spent time and money playing with it, but they refuse to break the law of chemistry.

"We have found the method—not because of our knowledge of chemistry but rather in spite of it, by going two points beyond and doing something which has not heretofore been done. So, I have taken over those who have a smattering knowledge of the processing and am using them in the sales organization as an educational factor. I presume some day everybody will know about it because the processing is so simple, and I am surprised the chemists have not found it.

"However, there is nothing quite so repugnant as a can of fruit that has the turps taste and smell. On the other hand, there is nothing so delicious and satisfying in the hot days of summer as canned fruit or juice when it tastes just like the fresh product. I am not at this time having anything to do with the canning of hearts, nothing but the juice itself. What applies to grapefruit likewise applies to oranges, and

unless we were able to process the product and eliminate the turps taste, we would not have entered this field.

"Many of my friends in the State have wired, telephoned and written letters, some have paid me a visit, cautioning me against going into this business—all based upon their sad experience in flirting with it.

"I thank you for your interest, and wish to advise that if ever a customer gets a case of our product that is not just right they only need return it at our expense and get another. We will guarantee everything. But to eliminate this possibility to the lowest possible quantity, I intend to see that every lot is incubated and if anything is going to happen to it let it happen before it leaves the factory."

Florida County Sells \$1,305,000 Road Bonds.

B. M. Robinson, clerk of the Orange County Commissioners, Orlando, Fla., advises that an Orange county bond issue of \$1,305,000 for the construction of roads has been sold to Eldredge & Co., New York, and Wright, Warlow & Co., Orlando, at a price of \$1,321,500. The bonds will be issued in denominations of \$1000 and will bear an interest rate of 5 per cent.

No Need for Cheap Foreign Labor.

The Immigration Restriction League, Boston, Mass., says:

"Real American business efficiency does not lie in the reckless importation of masses of cheap labor. Real efficiency for us means not only doing more with fewer workers, but making more effective use of the great numbers of American workers who have been laid off on all sides by modern mechanical improvements. That is our biggest problem now. These idle hands need to be changed from an economic liability into an asset, for it is within our power to make effective producers and valuable customers out of what is at present our greatest national waste. Our unused American labor constitutes, without doubt, our greatest opportunity for increasing our wealth by turning waste of time and energy into production."

Portable Buildings for Refreshments.

"Making Markets," Volume 3, Number 7, which is the November issue of this interesting publication from the offices of the Sheet Steel Trade Extension Committee, Pittsburgh, Pa., contains several articles of particular attractiveness, with illustrations, showing the value of sheet steel for various structures. For instance, J. A. Pardoe, formerly a traveling showman, now has in the city of Omaha, Neb., 14 little refreshment stations suitably distributed. Four years ago he began to make and sell ice cream at one of these stations and their design is his trademark. The buildings are each 10 feet square, with an upright sign, also of steel. Their advantage is that if a location proves unprofitable the building can be moved to another and better site. Each one is prettily painted with aluminum and green.

Exporters and Importers at Osaka, Japan.

A Directory of Exporters and Importers of Osaka, 1927, has been published by the Osaka Municipal Office, Department of Commerce and Industry. It states that Osaka, with a population of more than 2,114,000 people, is the largest city in Japan. About 4000 companies are conducting business in the city, with an aggregate capital of 2,800,000,000 yen, 2200 of them being commercial companies, with total capital of 1,450,000,000 yen, while 780,000,000 yen is invested in industrial companies. Agricultural and mining companies, it is stated, are few and have limited capital. The Japanese yen or unit of currency is worth about 50 cents at normal exchange. There is a complete directory of exporters and importers, also lists of the many articles and products exported and imported, each class separately.

PROPOSALS

Bids close December 30, 1927.

Reinforced Concrete Bridge

JOB No. 335

Little Rock, Ark.

Sealed bids for the construction of approximately 1907 Lineal Feet of Reinforced Concrete Bridge and Approaches thereto across the Red River at Fulton, State Highway No. 67, Sections 1 and 2, Hempstead and Miller Counties, Arkansas, will be received by the Arkansas State Highway Commission at their office in Little Rock, Arkansas, until 10 o'clock A. M. December 30, 1927, at which time they will be publicly opened and read.

The proposed work consists of approximately five arch spans, each 185 feet long, and 980 feet of deck girder approaches, with clear roadway of 26 feet, and involves the following approximate items and quantities:

1. Excavation for retaining walls, column pedestals and for abutments above elevation 10 feet on gage.....	3,289 Cu. Yds.
2. Volume inside cofferdams for arch piers and abutments, below elevation 10 feet on gage, whether earth or water.....	5,760 Cu. Yds.
3. Excavation for arch piers and abutments, shale or soapstone.....	508 Cu. Yds.
4. Concrete in bases of all piers and abutments for arch spans, Class B Concrete, except bottom four feet, which will be Class A Concrete.....	2,702 Cu. Yds.
5. Concrete in shafts and webs of all piers and abutments for arch spans up to a height of six (6) feet below tops of shafts, Class A Concrete.....	2,035 Cu. Yds.
6. Concrete in shafts and webs of all piers and abutments for arch spans above a height of six (6) feet below tops of shafts and in all work in arch spans, including all hand rails and lampposts, Classes E and F Concrete.....	3,940 Cu. Yds.
7. Concrete in all bases and caps for columns and for retaining walls, except hand rails and lampposts, Class A Concrete.....	1,027 Cu. Yds.
8. Concrete in approaches above bases and caps, including hand rails and lampposts, Classes E and F Concrete.....	2,228 Cu. Yds.
9. Reinforcing Steel, all sizes.....	1,250,000 Pounds
10. Bronze expansion plates and bolts.....	330 Pounds
11. Electric-light wiring and fixtures complete.....	40 Lampposts
12. Concrete piles, 84-40 feet long.....	3,360 Lin. Ft.
13. Bronze Name Plates, 24 in. x 36 in., complete.....	4 Only

Plans and specifications may be examined at the office of the State Highway Department, Little Rock, Arkansas, and at the office of Ira G. Hedrick, Inc., Consulting Engineers, 319-20 Ardis Building, Shreveport, La.
The successful bidder will be required to complete the contract in 300 calendar days. The proposal guarantee must consist of either a certified or cashier's check in the amount of \$30,000.

The instructions to bidders in the proposal form must be complied with.

DWIGHT H. BLACKWOOD, Chairman.

ARKANSAS STATE HIGHWAY COMMISSION.

Additional Proposals On Pages 106 to 107



PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS



Bids close January 10, 1928.

\$650,000 6% Bonds

FORT PIERCE INLET DISTRICT
Fort Pierce, Fla.

Sealed bids will be opened at 2 o'clock P. M. on January 10, 1928, for 650 \$1000 coupon bonds of Fort Pierce Inlet District, bearing six per cent semi-annual interest. Bonds mature serially from 1929 to 1958. Approving opinion by Thomson, Wood & Hoffman of New York City.

Write to E. L. Price, Chairman, Fort Pierce, Florida, for circular containing full information.

Bids close January 2, 1928.

\$7000 Drainage Bonds

Greenwood, Miss.

Sealed bids for the sale of the bonds of The Pelucia Swamp Land District of Carroll County, Mississippi, in the amount of seven thousand dollars, will be received by the Board of Supervisors of said county on the first Monday of January, A. D. 1928, at the Courthouse at 12 o'clock M.

Certified check for \$200 required. For particulars address E. L. and H. C. Mounger, Greenwood, Miss.

J. T. ALLEN, Clerk.

Bids close January 3, 1928.

WAR DEPARTMENT, United States Engineer Office, Montgomery, Alabama, December 1, 1927. SEALED BIDS, in triplicate, will be received until 12 noon, Central time, January 3, 1928, and then publicly opened, for furnishing all labor and materials and performing all work for constructing and delivering two 80-foot creosoted wooden decked barges. Further information on application.

Bids close December 29, 1927.

SEALED BIDS, in triplicate, subject to the conditions contained herein, will be received by the U. S. Veterans' Bureau, Room 791 Arlington Building, Washington, D. C., until 11 A. M. December 29, 1927, and then publicly opened, for furnishing all labor and materials and performing all work for Construction of Buildings and Utilities, including roads, walks and drainage, at U. S. Veterans' Hospital, Portland, Oregon. This work will include excavating, reinforced concrete construction, hollow tile, brick work, cast stone, marble work, floor and wall tile, iron work, steel sash, steel stairs, with slate treads; slate, metal and built-up roofing, roof ventilators, skylight, metal lathing, plastering, carpentry, platform scales, insect screens, metal weather strip, painting, glazing, hardware, plumbing, boiler plant, heating, steel oil tanks and oil burners, electrical work, electric elevators, refrigerating plant and outside sewer, water, steam, gas and electric distribution system. SEPARATE BIDS will be received for Building Construction, Plumbing, Heating, Steel Oil Tanks and Oil Burners, Electrical Work, Electric Elevators, Ice-Making and Refrigerating Plant and Radial Brick Chimney, all as set forth on bid form. Bids will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract, and in making awards the records of bidders for expedition and satisfactory performance on contracts of similar character and magnitude will be carefully considered. At the discretion of the Director, drawings and specifications may be obtained upon application to the Construction Division, Room 791 Arlington Building, Washington, D. C. Deposit with application of a check or postal money order for \$100, payable to the TREASURER OF THE UNITED STATES, is required as security for safe return of the drawings and specifications within ten days after date of opening bids. FRANK T. HINES, Director, November 19, 1927.

RATE: 35 cents per line per insertion
PUBLICATION DAY: Thursday.

FORMS CLOSE: 4 P. M. Monday.

DAY LETTER: When too late to send copy by mail to reach us by 4 P. M. Monday, forward by day letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—35 cents per line per insertion.

Bids close December 27, 1927.

Proposals for Cast-Iron Water Mains. Office of Constructing Quartermaster, Fort Bragg, N. C. Sealed proposals will be received here until 10 A. M. December 27, 1927, and then opened, for the construction and completion of Cast-Iron Water-Supply System at Fort Bragg, N. C. \$25 deposit required for drawings, etc. Further information on application.

Bids close January 10, 1928.

Road and Bridge Construction

OFFICE OF THE STATE ROAD
DEPARTMENT

Tallahassee, Fla., December 7, 1927.

Sealed bids will be received at the above office until 10 A. M. on the 10th day of January, 1928, for the construction of the following projects:

F. A. Project No. 61-A—Road No. 1, Gadsden County, Quincy west, approximately 10.0 miles.

F. A. Project No. 61-C—Road No. 1, Gadsden County, River Junction east, 9.77 miles. Work on Projects 61-A and C to consist of constructing a Plain Cement Concrete Surface.

Project No. 677-D—Road No. 13, Levy County, from the Chieftand Road to Cedar Key, approximately 8.91 miles.

Project No. 695—Road No. 2, Lake County, from Silver Lake Forks toward Lisbon, approximately 3.0 miles.

Work on Projects No. 677-D and 695 to consist of constructing a Surface Treated Florida Broken Stone Base No. 2.

On the following designated Projects the work is to consist of Clearing, Grubbing, Grading and Constructing the necessary small Drainage Structures:

F. A. Project No. 62-A—Road No. 24, Osceola County, from Kissimmee to St. Cloud, 12.52 miles in length.

F. A. Project No. 62-C—Road No. 24, Osceola County, from St. Cloud to Holopaw, approximately 11.83 miles in length.

F. A. Project No. 62-D—Road No. 24, Osceola County, from Holopaw to the Brevard County line, approximately 12.62 miles in length.

Project No. 709—Road No. 39, Holmes County, from Alabama State line south, 9.09 miles.

Project No. 710-A—Road No. 17, Hillsboro County, from the Thonotosassa Road west, 6.18 miles.

Project No. 710-C—Road No. 17, Hillsboro County, from Project 710-A to Tampa, approximately 12.69 miles in length.

Project No. 732—Road No. 17, Polk County, from Lakeland to Auburndale, approximately 8.94 miles in length.

Project No. 736—Road No. 39, Holmes County, from the Washington County line north, 8.58 miles.

Project No. 735—Road No. 17, Polk County, from Auburndale to Haines City, approximately 11.22 miles in length.

Project No. 757—Road No. 2, Polk County, from Bartow to Ft. Meade, approximately 10.26 miles in length.

Project No. 758—Road No. 2, Polk County, from Ft. Meade to Hardee County line, approximately 8.34 miles in length.

Project No. 683-A—Road No. 4, Palm Beach County, from West Palm Beach to Delray, approximately 12.9 miles in length.

F. A. Project No. 55-B—Road No. 14, Alachua County, consisting of two concrete bridges and one concrete overhead crossing. The combined length of bridges is 263 feet. The length of overpass is 196 feet.

Project No. 677-D—Road No. 13, Levy County, being four Standard Creosoted Timber Bridges, the combined length of which is 1335 feet.

Project No. 764-B—Road No. 50, Suwannee County, being a concrete overhead crossing approximately 113 feet in length.

Project No. 710-B—Road No. 17, Hillsboro County, between Plant City and Tampa, consisting of six (6) Concrete Bridges totaling 208 feet in length.

All work to be done in accordance with plans and specifications of the State Road Department.

A certified check, made payable to the Chairman of the State Road Department, in the sum of five per cent (5%) of the amount bid must accompany each proposal.

Plans may be examined at this office, at the office of the Division Engineer, and may be obtained upon application to this office for the sum of \$5.00 for each set of plans.

The right is reserved to reject any or all bids.

F. A. HATHAWAY,
Chairman.

J. L. CRESAP,
State Highway Engineer.

Bids close December 30, 1927.

Pumping Plant

Bradenton, Fla.

Sealed proposals addressed to City of Bradenton, Bradenton, Florida, and marked "Sealed Proposal" will be received until 1.30 P. M. December 30, 1927, to be opened immediately thereafter, for furnishing material, equipment and labor and constructing certain work approximately as follows:

2 1750-G.P.M. Centrifugal Pumps, each direct-connected to multi-cylinder gasoline engines.

2 750-G.P.M. Centrifugal Pumps, each direct-connected to electric motors.

1 100-K.W. Multi-Cylinder Vertical Gasoline Engine or Diesel Engine driven A.C. generating unit, direct-connected.

1 Switch and Gauge Board.

1 5-Ton Hand-operated Traveling Crane.

1 Pumping Station Building of Concrete and Brick.

1 Reinforced Concrete Reservoir, 60 feet in diameter and 24 feet deep, complete with concrete roof.

Erecting Machinery and making hydraulic and electrical connections.

Each bid is to be on blank forms furnished by the Commissioner of Public Works, and is to be accompanied by a certified check or bid bond issued through a local agency by a bonding company qualified to do business in the State, made payable to City of Bradenton, Florida, for 5 per cent of bid.

Certified check or bid bond will be forfeited as liquidated damage if contract and bond are not executed within the time specified, if proposal is accepted; otherwise will be returned within ten days.

The right is reserved to reject any and all bids.

Specifications may be seen at the office of the Clerk and the office of Commissioner of Public Works, and specifications may be obtained from the Commissioner of Public Works.

R. K. VAN CAMP,
Commissioner Public Works.

L. L. HINE, City Clerk.

E. V. CAMP & ASSOCIATES, INC.,
Consulting Engineers.

Atlanta, Ga.; Bartow, Fla.

Bids close January 24, 1928.

Sewer System

Irvine, Ky.
Sealed bids will be received by the undersigned on January 24, 1928, till 7 P. M. for construction of Sanitary Sewer System, City of Irvine, Ky., approximating 90,000 feet. Tax of \$1.00 per foot against abutting property, ten-year bond plan; remaining cost by city available.

JOHN A. WALLACE, Mayor.
Further particulars write
J. R. WHITE, Clerk.

Bids close January 5, 1928.

Sanitary Sewerage System

DeQuincy, La.
Sealed proposals will be received by the Board of Sewerage Commissioners of Sewerage District No. 1 of DeQuincy, Louisiana, for furnishing all labor, materials and equipment and constructing a Sanitary Sewerage System, as per plans of Engineers, in and for the Sewerage District No. 1, Town of DeQuincy, Louisiana, until 7 o'clock P. M. January 5, 1928, at which time they will be opened and read publicly.

The principal items of work are approximately as follows:

- 44,105 Feet 8-inch Sewer Pipe.
- 2,315 Feet 10-inch Sewer Pipe.
- 5,630 Feet 12-inch Sewer Pipe.
- 10,125 Feet 15-inch Sewer Pipe.
- 320 Feet 18-inch Sewer Pipe.
- 196 Manholes, complete.
- 690 Feet 12-inch Soil Pipe.
- 280 Feet 10-inch Soil Pipe.
- 400 Feet 8-inch Soil Pipe.
- 11 12x8 Soil Pipe Tees.
- 4 10x8 Soil Pipe Tees.
- 12 8x8 Soil Pipe Tees.
- 108 Feet 24-inch Cast-Iron Pipe.
- 288 Feet 20-inch Cast-Iron Pipe.
- 12 Feet 18-inch Cast-Iron Pipe.
- 264 Feet 16-inch Cast-Iron Pipe.
- 252 Feet 12-inch Cast-Iron Pipe.
- 60 Feet 10-inch Cast-Iron Pipe.
- 204 Feet 8-inch Cast-Iron Pipe.
- 15,000 Gravel Surfacing; take up and relay.
- 1 Septic Tank.
- 2 Sludge Beds.

Accessories to Sewerage System.
Bids must be accompanied by a certified or cashier's check on a bank satisfactory to the Commissioners for FOUR THOUSAND (\$4000) DOLLARS, drawn to the order of the Board of Sewerage Commissioners of Sewerage District No. One (1), DeQuincy, Louisiana, without restrictive indorsements, which will be forfeited in event the said Commissioners accept bid and bidder fails to execute contract and surety bond within ten days after said acceptance. Checks of unsuccessful bidders will be returned to bidders.

All bids will be compared on the basis of the Engineer's estimate of the amount of work to be done. Copies of specifications

may be obtained from the Engineers or Secretary of the said Board of Commissioners upon receipt of \$5.00 deposit, which amount will be returned to bona fide bidders.

Plans may be seen at the office of the Engineers or the office of the Secretary of the said Board of Commissioners, or a set will be furnished by the Engineers upon payment of \$15, which amount will NOT be returned.

The right is reserved to reject any or all bids, or to award contract to any bidder or bidders in part or as a whole, as considered to the best interest of the District.

BOARD OF SEWERAGE COMMISSIONERS,
SEWERAGE DISTRICT NO. 1,
DEQUINCY, LOUISIANA.
By H. L. SMITH, President.
M. M. SMITH, Secretary.

J. B. McCRARY ENGINEERING
CORP., Engineers,
Atlanta, Georgia.

Bids close January 2, 1928.

Electric Pump Control and Repairs

Plant City, Fla., December 12, 1927.

Sealed proposals will be received until 8 P. M. January 2, 1928, by the Board of City Commissioners of Plant City, Fla., for the installation of an automatic electric-control system on the 600-gal. pump now in use at the City Water Works, also for the overhauling and repairing of the above pump.

A certified check in the amount of 25 per cent of the bid must accompany each proposal.

Plans and specifications on file at the office of the City Manager, Plant City, Fla.
By order of the City Commissioners of Plant City, Fla.

E. H. THOMPSON,
City Manager.

Bids close December 28, 1927.

Notice to Contractors

Houston, Texas.

Sealed bids will be received at the office of the City Secretary of the City of Houston, Texas, until 11 o'clock A. M. Wednesday, December 28, 1927, for the construction of channel change for Buffalo River and construction of substructure for a farmer's market.

The following approximate quantities will be required:

- Earth excavation, 80,000 cubic yards.
- Driving 550 tons steel sheet piling.
- Furnishing and driving 12,000 lin. ft. untreated timber piling.
- Furnishing and driving 50,000 lin. ft. treated timber piling.
- Furnishing and placing 1500 cubic yards 1:2:4 concrete.
- Furnishing and placing 75 tons reinforcing steel.

Contract will require work to be completed in one hundred days.

Plans and specifications and all necessary information may be had upon application at the office of the City Engineer. A deposit of \$10 is required on the plans, which will be refunded upon submission of a bid on the work or return of plans and specifications in good condition. Certified check upon any bank doing business in the City of Houston, Texas, equal to five per cent of the bid must accompany each proposal. The city reserves the right to reject any or all bids or to accept any bid deemed advantageous to it.

Dated this 8th day of December, 1927.
O. F. HOLCOMBE, Mayor.

Bids close January 24, 1928.

Street Signs

Birmingham, Ala.

Sealed proposals will be received by the undersigned until 10 o'clock A. M. Tuesday, January 24, 1928, for the furnishing of approximately three hundred and fifty (350) complete street signs f. o. b. Birmingham, Alabama.

Street signs may be of the type generally known as the "Criss Cross" 30-C as manufactured by the Municipal Street Sign Company, Inc., New York City.

The signs are to be used on three (3) inch outside diameter posts. Each sign shall consist of two double-faced plates or four plates having sign on one side, two being encased back to back in malleable iron frame.

Bids will be accepted on other types, provided the bidder shall submit with his bid detailed specifications and plans of the sign and frame which he proposes to furnish, together with one sample sign.

Each plate shall be approximately five and one-half (5½) inches high by twenty (20) inches long. The size of the letter of the name in the top part of the sign shall be ¾ inches high, and the size of the letter in the lower part of the sign shall be 3 inches high. The lettering on the plates must show the names of the street and avenue as designated by the city.

The bidder shall submit with his bid a certified check or bidder's bond on a reliable surety company in the amount of five (5%) per cent of the bidding price as a surety that in case of award of contract he will enter into a formal contract for the furnishing of street signs, ready for installation, and furnish approved bond in the amount of one hundred (100%) per cent of the contract price as a surety that he will carry out the conditions of his contract and fulfill the guarantees contained therein.

Detailed information will be furnished upon application to the undersigned.

The City of Birmingham reserves the right to reject any or all bids or to accept any bid submitted, even though it may not be the lowest, should it appear to be the most advantageous to the city.

A. J. HAWKINS,
City Engineer.

Additional Proposals On Page 105



CLASSIFIED OPPORTUNITIES



MINERAL AND TIMBER LANDS, WATER POWER, MISCELLANEOUS PROPERTIES

MINERAL PROPERTIES

Kaolin, feldspar, mica, asbestos, cynite, corundum, garnet, gold and other metallic minerals. If interested in the above minerals write me.

W. B. McGUIRE, Franklin, N. C.

DEL FUEGO CLAY IS PRACTICALLY A GULF COAST MONOPOLY. FOR SALE AT \$50,000

Tested 40 feet deep; burns deep RED and Pink. Analyzes like St. Louis and Kansas City Clays. Is evidently restricted Miss. River deposit. Has near a mile frontage on L. & N. R. R., between two Tidewater Bayous and close contact with Gulf Coast Highways; 13 miles from New Orleans, 10 miles from Bay St. Louis, Miss. PURE ARTESIAN WATER. HEALTHY TOWNSITE. 37 years Owner, Box 24, Warrior, Ala.

RATES AND CONDITIONS

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost allow seven words of ordinary length to a line. When the advertisement contains a number of long words proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisement accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c per line; 300 lines, 26c per line; 500 lines or more, 25c per line.

MINERAL AND TIMBER LANDS, WATER POWER, MISCELLANEOUS PROPERTIES

COAL LANDS AND MINES

POCAHONTAS No. 3 mine, royalty, 400 tons' capacity, running steady, full electric plant. Price attractive for quick deal. W. H. McFarland, Empire Bldg., Pittsburgh, Pa.

LIMESTONE DEPOSITS

FOR SALE—Limestone Deposits, unlimited supply, near Hawkinsville, Ga. ROBT. S. ANDERSON, Hawkinsville, Ga.

COLONIZATION LAND

COLONIZATION TRACT—50,000 acres surrounding county site of Baldwin County, Ala.; one of the most fertile and best advertised counties in South; \$10 per A. Terms. J. D. Clark, 416-17 Meaher Bldg., Mobile, Ala.

MINERAL AND TIMBER LANDS, WATER POWER, MISCELLANEOUS PROPERTIES

TIMBER AND TIMBER LAND

FOR SALE—Hardwood timber in tracts of 2000, 4000, 6000, 26,000, 50,000 acres. Each finest grades forked leaf white oak, red oak, ash and hickory. Mill sites, Investments, Bargains. Geo. M. Brasfield, Trenton, Tenn.

WHITE CEDAR (JUNIPER)—3 million feet excellent timber, especially suitable for telephone poles and boat lumber; yellow pine, 2 million feet; also cypress and hardwoods; all virgin timber. Liberty County, Florida. Only important body of white cedar now left in Florida.

E. SUSKIND, Jacksonville, Fla.

TIMBER CRUISER

TIMBERLAND CRUISING and values given anywhere. Also operating plans furnished. Advice as to yearly growth in value of young timber. Many years' practical experience.

W. J. McGOVERN, Timber Cruiser, Clearfield, Pa.

TIMBER OPERATION

REAL BARGAIN CAN BE HAD IN THIS 40 to 50 Million feet pine and Cypress Timber, New Band Mill, Tram and Locomotives and all other Equipment required to operate Sawmill. Plant is less than year old and can be sawing lumber in five days. For sale at Half Price to close partnership. OTHER TIMBER TRACTS AND LARGE TRACTS OF CUTOVER SOUTHERN LANDS.

F. L. GIBSON, Thomasville, Georgia.

FARM, FRUIT AND TRUCK LANDS

FLORIDA

ORANGE GROVES IN ORANGE COUNTY, FLORIDA, the center of the Citrus Industry. We have several excellent groves and can furnish grove care by an organization of sixteen years' experience.

REX-McGILL INVESTMENT CO., Box 293 Orlando, Florida.

"FLORIDA BOUND."

If you enjoy Life, you'll love FLORIDA: "everybody" is going to FLORIDA this season—some for its Superb Climate, others to make safe and solid investments now, while it's still "bargain time," and return later to live; others to buy an inexpensive little home, Poultry Ranch, Truck Farm or Grove and "take life easy." We can "fit you up." Send today for booklet and list. TAMPA-WEST COAST REALTY CO. (INC.), Realtors, Opp. P. O. "Since Before the War," Tampa, Florida.

LOUISIANA

CUT-OVER LAND

5000 acres cut-over pine Louisiana land on T. & P. R. R. and model road; railroad station in center of tract. Price \$5 per acre. 5500 acres alluvial Louisiana land on railroad. Price \$6.50 per acre.

W. A. STEPHENS, Realtor, P. O. Box 555, Shreveport, Louisiana.

NORTH CAROLINA

If interested

FOR HOME OR FOR INVESTMENT In the great and rapidly developing STATE OF NORTH CAROLINA, especially in its leading city, Charlotte, or in a Southern Cotton Mill or Southern Mill Stocks, write to

F. C. ABBOTT & CO., Realtors and Investment Bankers Nearly thirty years in Charlotte.

TEXAS

FOR SALE

2000 acres tillable land in artesian belt, 11 miles south of Pearsall; bargain for quick sale. W. J. LYTLE, 518 Texas Theater Building, San Antonio, Texas.

"TEXAS 'WINTER GARDEN' LANDS."

A subdivision in 20-40 acre tracts, cleared and irrigated; suitable for Citrus Fruits, Winter Vegetables, Staple Crops. Reasonable prices. INVESTIGATE our proposition TODAY.

BERMUDA LANDS COMPANY, Realtors, 501-4 Houston Building, San Antonio, Texas.

FLORIDA PROPERTY TO LET

ARE YOU COMING TO PALM BEACH?

We have available stores, apartments and houses to let for season; prices ranging from \$500 and up; write or wire.

THE PRUDENTIAL COMPANY, Palm Beach, Fla. Specializing in property management.

CITY AND SUBURBAN PROPERTY

DESIRABLE FLORIDA PROPERTY

For Quick Sale—at Reasonable Price famous Ormond-Daytona Beach, running back 2900 feet to the Halifax River, located two miles north of the Ormond Beach Hotel (owned and operated by the Florida East Coast Railroad) and the winter residence of Mr. John D. Rockefeller. For quick sale I offer a portion of this land for cash at a price way below its present value.

It is an ideal location for a large private estate or for a high-class residential development.

For particulars please address WALTER L. THURSTON, P. O. Box 1, Ormond Beach, Florida.

BUSINESS OPPORTUNITIES

WRITE TO L. WUESTE, P. O. Box 183, Eagle Pass, Texas, for information on the biggest gravity irrigation project in the State; unusual possibilities.

WASHINGTON RESIDENT, former high Government official, wants connections with manufacturing or business concerns desiring Government business or having business before Government departments. Information in regard to pending legislation on any subject. Terms consistent with services rendered. No. 6836, care Manufacturers Record.

PATENTED GATE OPENING DEVICE—Want to get in touch with manufacturer to assist us in manufacturing and distributing on a profit-sharing or royalty basis. Material required could be salvaged from waste of other products; no costly machinery necessary. Alabama Trading Corp., P. O. Box 1583, Mobile, Ala.

FOR SALE—Half or whole interest in a well-equipped sand and gravel proposition, Philadelphia Road at the city limits, Baltimore, Md.; 32 acres, with abundance of as good material as there is in the State, with lake supplying abundance of water. Railroad running through property.

H. L. THOMAS, 1821 Eutaw Place, Baltimore, Md.

FINANCIAL

\$80,000 LOAN

Wanted, 5-10 years; secured by first mortgage on more than 5 square mile area, 25 miles north of Birmingham, known as Mont Eyrie. It comprises inexhaustible first-class materials for manufacturing Portland Cement, Lime, Fire Brick, Vitriol, Brick, other Brick, Tile and other clay products. Electric water power service, Coal Acreage, Timber Forests and indicated Iron, Oil and Gas. Also Ideal Plateau Fruitlands, priceless, picturesque beauty and an unparalleled assemblage of Suburban Attractions.

The entire property is exceptionally accessible through highway and railway facilities. The highways and roads within its borders could not be constructed for double the amount of the above loan figures.

Immediate annual average net income of \$20,000 is guaranteed as minimum net revenue if satisfactory loan is secured. This will be derived from the production of "Fruit and Produce" on the improved acreage, now operating under slow bells for want of operating capital.

The property is ideally situated for Suburban Factory Sites, Subdivisions, Hotel and Country Club Sites and Amusement Parks. Birmingham is the PEAK of the South's prosperity. Mont Eyrie is the HUB of the South's potential population and wealth. Their destinies are linked. Let me show you. 20 years Owner, Box 24, Warrior, Ala.

BUSINESS AND INVESTMENT PROPERTIES

JACKSONVILLE (FLORIDA) INCOME PROPERTY

Concrete building, 52½x105 feet, near new million-dollar Hotel George Washington on Adams Street, Jacksonville, Florida; land worth \$105,000; building \$40,000; leased to responsible party for \$8400 per year. Will sacrifice for cost price of \$100,000. Address Owner, P. O. Box 377, Jacksonville, Florida.

COLLECTION

WE COLLECT Accounts, Notes, Claims anywhere in U. S. and Canada. No charges unless collected. Es. 25 years; bank ref. May's Collection Agency, Somerset, Ky.

INDUSTRIES WANTED

WARREN, ARKANSAS, population ten thousand, paved streets, electric lights; growing fast. Climate and health exceptionally good, abundance of labor, two railroads, high-power electrical lines and within ten miles of natural gas main. Daily lumber production 500,000 feet, with other industries, splendid cotton-oil mills, good schools, fine churches and fine people. Warren has an unlimited amount of raw material for manufacturing furniture, cotton and other allied industries. Taxes are low and desirable trackage sites, as well as industrial sites, could be furnished to reputable people. Two excellent banks and office buildings comparable with the best in the state. We invite correspondence and investigation. Address Chamber of Commerce, Warren, Arkansas.

HOUSTON, TEXAS, the magic city of the South, where seventeen railroads meet the sea. Steamers to and from all parts of the world sail from our Great Port.

We wish cotton mills.

Wonderful climate, cheap labor, unsurpassed location for mill, twelve miles city limits, on Main Concrete Highway Main line railway, to be double tracked soon; natural gas line through tract, high-power electric line across it. Owner will sell mill site of 400 acres for \$100,000; \$25,000 cash, \$25,000 stock in mill, balance one to ten years at six per cent interest. Adjoining property recently sold for \$333 per acre cash.

Investigation requested. GOHLMAN, LESTER & CO., INC., Cotton Factors, Houston, Texas.

FACTORY SITES

FOR SALE—360 acres, situated 8 miles from business center of Atlanta; about 3000 feet railroad frontage; suitable for large industries and their village sites. Taxes are exempt for 5 years on new industrial plants. CRAIG COFIELD, Oakland, Florida.

TAMPA, FLORIDA—the logical distributing point. HARRIS TERMINALS—fully equipped with railroad tracks on both the Seaboard and Atlantic Coast Line railroads.

We solicit your inquiries for WAREHOUSE and FACTORY sites. Prices and terms reasonable. HARRIS REALTY CO., Realtors, 105 W. Cass St., P. O. Box 585, Tampa, Florida.

PATENT ATTORNEYS

PATENTS—TRADEMARKS—COPYRIGHTS Charlotte office convenient to South. PAUL B. EATON, Registered Patent Attorney, 406 Independence Building, Charlotte, N. C., and 903 Grant Place N. W., Washington, D. C.

PATENTS—TRADEMARKS—COPYRIGHTS Write for our free Guide Books and "RECORD OF INVENTION BLANK" before disclosing invention. Send model or sketch and description of your invention for our inspection and instructions free. Terms reasonable. Highest references. VICTOR J. EVANS & CO., 712 Ninth, Washington, D. C.

INVENTORS—Send sketch or model of your invention for opinion concerning patentable nature and exact cost of applying for Patent. Book, "How to Obtain a Patent," sent free. Gives information on Patent procedure and tells what every inventor should know. Established 25 years. Chandler & Chandler, 412 Seventh St. N. W., Washington, D. C.

PATENT ATTORNEYS

PATENTS—Booklet free. Highest references. Best results. Promptness assured. **WATSON E. COLEMAN**, Patent Lawyer, 724 Ninth St. N. W., Washington, D. C.

INDUSTRIAL SURVEYS

ENGINEERING REPORTS on resources of cities and towns. Recommendations for industrial development made by specialists in locating industries.

TECHNICAL SERVICE COMPANY, Woolworth Building New York City

BRANCH OFFICE SERVICE

HOUSTON, TEXAS.
Branch Office Service.
Personal Representation. Mail Forwarding.
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EDWARD L. BLOSSAT,
P. O. Box 680, Houston, Texas.

Telephone Listing. Mail Forwarding.
Representation.
Unusual Facilities Offered for Use of Salesmen.
Assistance in Selecting Men to Travel in This Territory.
MANUFACTURERS AND REPRESENTATIVES' SERVICE BUREAU
Builders' Building Charlotte, N. C.

AGENCIES WANTED

AGENCIES—DEALERS.
Territories for sale of steel windows open in many parts of the United States. Write us for particulars. **ALLISON STEEL PRODUCTS COMPANY**, Chester, Pa.

REPRESENTATIVES WANTED**BLAW-KNOX****WANTS GRATING DISTRIBUTOR**

Are you the man or the firm who can make a success of selling Blaw-Knox Security Steel Grating and Open Flooring in your locality? This grating has five points of primary advantage over others in the market and is extremely easy to sell, as its advantages are immediately apparent. It is extra strong, electroforged in one piece, has positive non-slip features, gives maximum lighting and ventilation and can be 100% effectively galvanized or painted. This new grating is causing a sensation among buyers. The Blaw-Knox Company, well known manufacturers of steel specialties, have a few good territories open for distributors who are in a position to sell engineers, architects, contractors, industrial plants, etc. Preliminary correspondence is invited. Tell us what lines you now handle, the extent of your organization and the territory you cover.

BLAW-KNOX COMPANY,
Pittsburgh, Pa.

SITUATIONS WANTED**ARE YOU GOING TO BUILD?**

CONSTRUCTION ENGINEER solicits correspondence from organizations contemplating new building construction or plant extension. Graduate engineer, with 18 years' experience in design and construction. Can handle all details from original analysis of project through design and actual construction to final completion and save you time and money. Loyal employee, good organizer and manager. Full co-operation with employers. Straight salary. Entire time devoted to client's work. Address No. 6843, care Manufacturers Record, Baltimore, Md.

MEN WANTED

SALESMAN WANTED—Our proposition offers greater earning possibilities to the real salesman than is offered to him in most any other line. A credit and collection service with a bonded recovery obligation. **American Security Credit Company**, General Offices, St. Louis, Mo.

WANTED—Good, reliable Paving and Highway Superintendent—one who understands equipment and plant and who can handle all branches of the business. Steady job after the first of the year for right man. Give experience, age and salary expected. Work in South and Middle West. Home office in the South. Address No. 6842, care of Manufacturers Record, Baltimore, Md.

IF YOU ARE OPEN to overtures for new connection and qualified for a salary between \$2500 and \$25,000, your response to this announcement is invited. The undersigned provides a thoroughly organized service, of recognized standards and reputation, through which preliminaries are negotiated confidentially for positions of the caliber indicated. The procedure is individualized to each client's personal requirements; your identity covered and present position protected. Established seventeen years. Send only name and address for details.

R. W. BIXBY, INC.,
103 Downtown Bldg., Buffalo, New York.

A SALESMAN

Successful salesman, experience selling power plants, can secure permanent, profitable connection. Acquaintance with industrial buyers desirable. Proven products, backed by a Surety Bond. Sell to every industrial plant, public institution, hotel and all buildings. 100% co-operation. Personal training given. Give details. Replies confidential. Position available January 1, 1927.

THE NORTH AMERICAN FIBRE PRODUCTS COMPANY

Cleveland, Ohio

MEN WANTED

WANTED—Purchasing Agent for Steel Company in Eastern Pennsylvania. Reply, No. 6829, care of Manufacturers Record, Baltimore, Md., stating age, experience and salary desired.

I WANT a thoroughly experienced sales manager who knows the A, B, C's of gasoline and oil engines to establish sales organization for entire State on best 5 H.P. oil engine manufactured. Wonderful money-making opportunities. **W. J. PHINN**, 7 South Dearborn Street, Chicago, Ill.

LUMBER FOR SALE

SEND US INQUIRIES for Steam Kiln Dried Soft Yellow Pine Finishing, rough and dressed; Shed Stocks, Casings, Base and Mouldings. Mixed cars a specialty. **Cochran Lumber Company**, Cochran, Georgia.

TIMBERS AND PLANK

FOR SALE—Oak or Cypress structural and railroad timbers and plank cut to order. Poplar and Gum Squares or dimensions. Inquiries solicited.
UNITED TIMBER & LUMBER CO.,
Memphis, Tenn.

CONTRACT WORK WANTED

DEPENDABLE COMPANY, with 45 years' experience, operating well-equipped and extensive plant consisting of Pattern Shop, Foundry, Machine Shop, Forge and Structural Shop, supported by skilled mechanics and capable engineers, wants connection with reliable consulting and contracting Engineers and others who desire a plant to manufacture Machinery and Equipment to meet their requirements. Plant facilities suitable for the manufacture of light or heavy units. Grey Iron and Semi-steel castings up to 40,000 lbs.; Brass and Aluminum up to 1000 lbs. Address No. 6796, care of Manufacturers Record, Baltimore, Md.

MACHINERY AND SUPPLIES

ICE-MAKING AND REFRIGERATING MACHINERY—New and rebuilt. Our prices on new Waynesboro Refrigerating Equipment and Household Electric Refrigerators very low. Buy direct from the manufacturer. All sizes. Get our prices on your requirements. **GEISER MANUFACTURING COMPANY**, "Department E," Waynesboro, Pa.

1 Kelley Router.
No. 7 New-bitten Chain Mortiser.
American Panel Raiser.
American Sash Rabbeting Machine.
American Variety Saw.
American Jigg Saw.
Fox Foot Power Motor Knife.
Planer Mill Hog.
International Time-clock, suitable for 60 employees.
Two (2) Watchman's Clocks.
18x42 Corliss Engine.
14x30 Timber Sizer.
These machines are offered at a real bargain; ask for prices.
DILLON SUPPLY COMPANY,
Raleigh, N. C.

THE STORY THE SOUTH IS WRITING

"The greatest epic ever written upon the pages of human history in material affairs is that which the South is writing in its marvelous achievements at the present time." From the 1927 **BLUE BOOK OF SOUTHERN PROGRESS**.

Published by
MANUFACTURERS RECORD
BALTIMORE, MD.

**Desirable Florida Property
For Quick Sale—At Reasonable Price**

Large strip of land on the famous Ormond-Daytona Beach, running back 2900 feet to the Halifax River, located two miles north of the Ormond Beach Hotel, (owned and operated by the Florida East Coast Railroad), and the winter residence of Mr. John D. Rockefeller. For quick sale I offer a portion of this land for cash at a price way below its present value.

It is an ideal location for a large private estate or for a high class residential development.

For particulars please address

Walter L. Thurston
P. O. Box 1 Ormond Beach, Fla.



RESALE DEPARTMENT

MACHINERY

EQUIPMENT

SUPPLIES



ELECTRICAL MACHINERY

Motors and Generators, A. C. and D. C. for sale at attractive prices. Large stock of New and Rebuilt Motors on hand at all times. Write for our stock list and prices.

V. M. NUSSBAUM COMPANY
Fort Wayne Indiana

GENERATING UNIT For Sale

1—Westinghouse D. C. Generator, 45 K.W., 125-250 V., 180-A with switchboard and 1 60-HP Ball Engine. Apply to

THE LANE COMPANY
Altavista, Virginia

RANDLE

OFFERS BIG BARGAINS IN

Used and Rebuilt Engine Generator Sets, Turbo Generator Sets, Motors, Rotary Converters, Generators, Motor Generator Sets, Engines, Boilers, Steam and Electric Machinery of all kinds, also Machine Tools. Send for our new machinery list. Yours for the asking.

The RANDLE
MACHINERY CO.

1734 Powers St., Cincinnati, Ohio.

For Sale

49—1½-yd., 2 ft. gauge Western 2-way dump cars. Splendid operating condition—at sacrifice price for quick sale.

Also:

Relay rails, relay pipe, boilers and other machinery at bargain prices. Let us know what you want.

W. M. Smith & Co.

BOX 1709

Birmingham, Ala.

OIL SWITCHES

General Electric
Westinghouse
Condit

Current and Potential
TRANSFORMERS

All Sizes and Voltages

I. T. E. BREAKERS

Attractive Prices

WRITE FOR LIST

TRANSMISSION EQUIP. CO.

217 South 24th St.

PHILADELPHIA, PA.

ENGINE AND TURBO UNITS HIGH PRESSURE BOILERS POWER PLANT APPARATUS

An inventory representing several million dollars of going units is released for quick sale on a bargain basis, because of replacement of local plants by transmission service.

Excellence of physical condition and operating records have been inspected and verified. Many units, in service only one or two years, check practically as new.

To secure early choice of efficient high value units, reliably recommended, at low cost, mail or wire specifications of your requirements.



WANTED

Heavy Duty Surfacers and Matcher
In writing give full information as to condition of machine, location and price.

Virginia Hardwood Lumber Co.
Tazewell, Va.

WATER TANK For Sale

Conical bottom, steel tank
on steel tower for sale cheap.

Justin Matthews
Little Rock Arkansas

AUTOMOBILE ELEVATOR FOR SALE

1—9x22 Otis Automobile. Elevator, motor driven, speed 35 ft. per minute. Address

C. L. UPCHURCH & SONS
Athens Georgia

GRAVEL WASHING PLANT

Having exhausted our Deposit of Gravel we have for sale complete Gravel Washing Plant capable of producing 50 cars per day.

This machinery consists of:

- 1—Lidgerwood Dragline Scraper
- 1—Standard Gauge Locomotive
- 6—Rodger Ballast Cars
- Rail — Screens — Belts — Boilers — Pumps and Engine, also Crushers.

If you are going in the Gravel business, this is an opportunity. You will save two-thirds the cost of a new plant, and be operating in sixty days.

SOUTHERN SAND AND GRAVEL CO.
Box 402, Richmond, Va.

"The 1927 BLUE BOOK OF SOUTHERN PROGRESS appears to be a wonderful success over previous books and should be a world of good to the South." Harry W. Davis, Secretary, Delaware Registration Trust Company, Wilmington, Del.

CRANES AND HOISTS

- 1—20 Ton, 76' Span, Shaw Crane, 4 Motors, 220 V, DC, also runway.
- 1—15 Ton Brown Gantry, 75' Boom.
- 1—20 Ton Orton & Steinbrenner Locomotive Crane, Std. gauge, 50' Boom, 8 wh.
- 1—1 Ton 34'10" Span Shepard Crane, 2 Motors, 110 V, DC.
- 10—½ Ton Alfred Box Hoists, 1 Motor, 220 V, DC.
- 1—2 Ton Detroit Hoist, 2 Motors, 220 V, AC Monorail Type.
- 4—Gantry Traveling (Crane) Devices, with G. E. Crane Motors, 230V, 20 H.P. Series Wound, Controllers.
- 1—No. 2 Canton Foundry Hand Crane on Wheels, Capacity 1 Ton.

Also electric hoists, hoisting engines, contractors equipment, etc.
Henry A. Hitner's Sons Company
4501 Richmond St. Philadelphia, Pa.

"God Bless Us Every One"

LISPED Tiny Tim—and what better greeting for you and for us at this happy Christmas time?

How the time gets away. Only yesterday it was last Christmas. We are getting old! Since we wrote our first Christmas advertisement years ago, we have come through three "panics" and two wars and have become grizzled and bald. How is it with you, old man?

Yes, the time flies. That youngster skylarking around here the other day as the "last cub" is now a serious journeyman with wife and babies. That good jour. has become the foreman. The foreman stands in the superintendent's shoes, and the hustling superintendent has become the "Old Man." The downy-lipped junior has moved his traps to the desk in the inner office, and the Grand Old Seniors, gentle voiced and gentle mannered—who founded the business and built it up for you—lay down their splendid work and go to their long home. Let us remember and appreciate them just a little bit at Christmas.

With men, so with machines. The passing years establish the appliance of merit. The good thing of this year becomes the Old Reliable of next year. No, sir, not a word about Elevators. Why, Boy, it's Christmas!

But say, Brother, you and I, who have talked together every Saturday for a whole year—yea, for many whole years—are we not greatly blessed that this joyous Christmas time finds us here happy and prosperous? If our Elevators have made you happy, your many orders have made us prosperous. We have spoken our Little Piece week after week, dear knows, poor enough sometimes, but always the best we could, and you have so patiently listened to us, believed we told the truth, and sent us your orders, and said nice things about us, and—

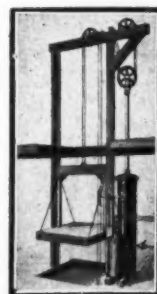
Oh, well, we were just thinking how nice it is we have been able to be thus mutually helpful and useful to each other. This is the true secret of a Successful Life, after all, isn't it? This is what the CHRISTMAS MAN came to do.

And we wonder if it is not a good idea to stop once a year and lovingly think of these things.

"PLEASE TAKE THE ELEVATOR"

May your heart and your life go like the Elevator—UP

THE RIDGWAY & SON CO.
Coatesville, Pa.





Large modern foundry designed, built and equipped by Austin for the New Orleans Car Wheel Foundry Co.

"From Plans to Pour" in New Orleans

New Foundry Designed and Built by Austin Complete Building Service

The wide scope and thoroughgoing completeness of Austin's nation-wide service is strikingly illustrated by the latest of many Austin projects in the South—a complete foundry for the New Orleans Car Wheel Foundry Co., designed, built and equipped throughout by Austin.

Other Southern projects handled by Austin this year include a huge railroad terminal in Texas, mills for rayon manufacture, industrial plants, laundries, etc.

The Austin Method of Undivided Responsibility assures the economical construction of efficient industrial buildings quickly and at low cost under positive guarantees covering:

- A Total cost of completed project in advance.
- B Completion date, with bonus and penalty clause, if desired.
- C Quality of materials and workmanship.

For preliminary layouts and approximate costs on building projects of any type or size immediately, wire, phone the nearest Austin office or mail the memo below.

THE AUSTIN COMPANY, Engineers and Builders, Cleveland
 New York Cincinnati Portland St. Louis Chicago Philadelphia Pittsburgh Seattle Detroit
 The Austin Co. of California: Los Angeles and San Francisco. The Austin Co. of Texas: Dallas

AUSTIN

Complete Building Service

Memo to THE AUSTIN COMPANY, Cleveland—

We are interested in a

.....project containing.....sq. ft. Send me a personal copy of

"The Austin Book of Buildings." Individual.....

Firm.....City.....

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